

## General Session Speakers

**Ellen Prager, Ph.D.**



President, Earth2Ocean, Inc., Miami, FL

**Dr. Ellen Prager** is a marine scientist and author of numerous popular science and children's books. She is widely recognized for her ability to make ocean and earth science entertaining and understandable to a broad audience. She is the former chief scientist of Aquarius Reef Base, the world's only undersea laboratory in the Florida Keys, and was at one time the assistant dean at the University of Miami's Rosenstiel School. She has traveled to exotic locales to research coral reefs, worked with the U.S. Commission on Ocean Policy, is a frequently requested public speaker, and has appeared as an expert on *The Today Show*, *Good Morning America*, *Larry King*, *Discovery* and more.

*For session details, see page 24.*

**Shirley Malcom, Ph.D.**



Head, Education and Human Resources,  
American Association for the  
Advancement of Science (AAAS)

**Dr. Shirley Malcom** is Head of Education and Human Resources of the American Association for the Advancement of Science (AAAS). The directorate includes AAAS programs in education, activities for underrepresented groups, and public understanding of science and technology. In 2006 she was named as co-chair (with Leon Lederman) of the National Science Board Commission on 21st Century Education in STEM. She serves as a Regent of Morgan State University and as a trustee of Caltech. Dr. Malcom is a fellow of the AAAS and the American Academy of Arts and Sciences. She served on the National Science Board, the policymaking body of the National Science Foundation, from 1994 to 1998, and from 1994-2001 served on the President's Committee of Advisors on Science and Technology. Dr. Malcom received her doctorate in ecology from Pennsylvania State University; master's degree in zoology from the University of California, Los Angeles; and bachelor's degree with distinction in zoology from the University of Washington. She also holds 16 honorary degrees. In 2003, Dr. Malcom received the Public Welfare Medal of the National Academy of Sciences, the highest award given by the Academy.

*For session details, see page 38.*

**William F. McComas, Ph.D.**



Parks Family Professor of Science Education  
University of Arkansas, Fayetteville, AR

**Dr. William F. McComas** is the inaugural holder of the Parks Family Endowed Professorship in Science Education at the University of Arkansas following a career as a biology teacher in suburban Philadelphia and professorship at University of Southern California. He has earned B.S. degrees in biology and secondary education, M.A. degrees in biology and physical science and a Ph.D. in Science Education from the University of Iowa. McComas is widely involved in many areas of science education. He has served on the boards of directors of the National Science Teachers Association (NSTA), the International History, Philosophy and Science Teaching Group (IHPST), the National Association of Biology Teachers (NABT) and the Association for Science Teacher Education (ASTE). He is a recipient of the Evolution Educator and Research in Biology Teaching awards from NABT, the Ohaus award for Innovations in College Science Teaching and the ASTE Outstanding Science Teacher Educator award. He is interested in the improvement of laboratory instruction, evolution education, the intersection of the philosophy of science and science teaching, science for gifted students, and science instruction in museums and field sites. McComas was recently a Fulbright Fellow in residence at the Centre for the Advancement of Science and Mathematics Teaching and Learning (CASTeL) at Dublin City University in Ireland.

NABT is proud to feature Dr. William McComas as the Tenth Annual Christine Chantry Memorial Speaker.

*For session details, see page 56.*

# speakers

## Invited Speakers

**Duane L. Pierson, Ph.D.**

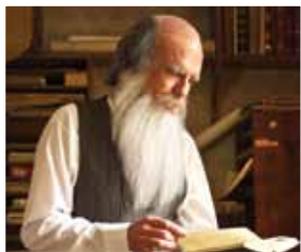


Director of Microbiology at  
NASA - Johnson Space Center,  
Houston TX

As a Fellow in the American Academy of Microbiology, **Dr. Duane Pierson** serves as NASA's Chief Microbiologist and expert on the many microbiological aspects of space flight. He earned his Ph.D. in Biochemistry from Oklahoma State University and was at Baylor College of Medicine for ten years before joining NASA over 30 years ago. He is responsible for formulating, developing, and implementing NASA's microbiology program for current and future human exploration of space. His focus is on identifying microbiological risks of the spacecraft environment to the crew and implementing plans to prevent or mitigate the risk. In addition to his spaceflight operational responsibilities, he directs a highly productive research program with strong collaborations with many U.S. and international scientists. The emphasis of his research has been on the microbiology of closed environments, the effects of microgravity on bacteria and viruses, and viral reactivation as a biomarker for human immune function.

*For session details, see page 27.*

**Robert Dennison**



Retired Biology Teacher

**Robert Dennison**, a retired biology teacher from Houston, TX, has been bringing great scientists of the past to life for his students since 1984. In 1990, he began performing as Charles Darwin for gatherings of science teachers, scientists, and science historians. Mr. Dennison's portrayals of Darwin have garnered much acclaim over the past 22 years as he has spoken throughout the U.S., as well as Canada and England. In 1999, he was given the unique honor of posing as Darwin for photographs taken in Darwin's restored home, which is now a museum outside of London.

Mr. Dennison has received numerous teaching awards, including the Outstanding Biology Teacher Award from NABT, the Honorary Life Membership Award from the Texas Association of Biology Teachers, the O'Donnell Texas AP Teacher Award, and the HEB Excellence in Education Lifetime Achievement Award.

*For session details, see page 38.*

**Stephen Secor, Ph.D.**



Associate Professor, University of Alabama,  
Tuscaloosa, AL

**Dr. Stephen Secor** is an Associate Professor at the University of Alabama and received his Ph.D. in Biology from UCLA. His postdoctoral studies with Jared Diamond at UCLA School of Medicine led to the development of the python model for studies in the regulatory mechanisms of physiological performance. His comparative studies identified the adaptive relationship between feeding habits and the regulation of digestive performance. He is a past recipient of the George A. Bartholomew Award for distinguished investigation in comparative physiology and serves as Associate editor for *Physiological and Biochemical Zoology*. His research, funded by NIH and NSF, has been published in *Science*, *Nature*, *Proceedings of the National Academy of Sciences*, and *American Journal of Physiology*. Dr. Secor maintains an active laboratory of undergraduate and graduate students exploring the various facets of amphibian and reptile physiology, and provides outreach programs to local schools on the biology of amphibians and reptiles.

*For session details, see page 48.*

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# highlighted speakers

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## Sam Rhine



Genetic Educator and Speaker

**Sam Rhine** is a professional speaker who crosses the U.S. every year presenting “Genetic Update Conferences” for high school students and their teachers. He is also on the faculty of the Department of Applied Health Science at Indiana University in Bloomington teaching “Causes, Prevention and Correction of Developmental Disabilities”. Mr. Rhine’s undergrad and graduate work was in zoology and protozoan genetics at IU Bloomington. His post-graduate work was in Human Genetics at IU Medical Center in Indianapolis and Harvard Medical School in Boston. His dissertation research laid the basis for the development of CVS (chorionic villus sampling) for human first trimester prenatal diagnosis. He was NABT’s Honorary Member honoree in 1997.

For session details, see page 56.

## BELS Speaker

## Michael Pollan



Photo credit: Alia Malley

John S. and James L. Knight Professor of Journalism, Graduate School of Journalism, University of California Berkeley, Berkeley, CA

NABT is proud to feature best-selling author and journalist **Michael Pollan** during a special dinner event benefiting the **NABT Biology Educator Leadership Scholarship (BELS)** where he will be awarded the **2012 NABT Distinguished Service Award**.

For the past twenty-five years, Michael Pollan has been writing award winning books and articles about the places where nature and culture intersect: on our plates, in our farms and gardens, and in the built environment. He is the author of four New York Times bestsellers: *Food Rules: An Eater’s Manual* (2010); *In Defense of Food: An Eater’s Manifesto* (2008); *The Omnivore’s Dilemma: A Natural History of Four Meals* (2006) and *The Botany of Desire: A Plant’s-Eye View of the World* (2001). *The Omnivore’s Dilemma* was named one of the ten best books of 2006 by both the *New York Times* and the *Washington Post*. It also won the California Book Award, the Northern California Book Award, the James Beard Award, and was a finalist for the National Book Critics Circle Award. *The Botany of Desire* received the Borders Original Voices Award for the best non-fiction work of 2001, and was recognized as a best book of the year by the American Booksellers Association and Amazon.com. Pollan is also the author of *A Place of My Own* (1997) and *Second Nature* (1991).

Pollan was named to the 2010 *TIME* 100, the magazine’s annual list of the world’s 100 most influential people. In 2009 he was named by *Newsweek* as one of the top 10 “New Thought Leaders.” A contributing writer to *The New York Times Magazine* since 1987, his writing has received numerous awards: he was a finalist for the National Magazine Award in 2009 for best essay; he received the James Beard Award for best magazine series in 2003; the John Burroughs prize in 1997 for best natural history essay; the QPB New Vision Award for his first book, *Second Nature*; the 2000 Reuters-I.U.C.N. Global Award for Environmental Journalism for his reporting on genetically modified crops; the 2003 Humane Society of the United States’ Genesis Award for his writing on animal agriculture; the 2008 Truth in Agricultural Journalism Award from the American Cornrowers Association; the 2009 President’s Citation Award from the American Institute of Biological Sciences, and the 2009 Voices of Nature Award from the Natural Resources Defense Council. In 2009, he appeared in a two-hour PBS special based on *The Botany of Desire* as well as in the documentary, *Food Inc.*, which received an Academy Award nomination.

For full event details, see page 17.