



The role of the ocean in the coupled climate system

ANTONIO BUSALACCHI

President, University Corporation for Atmospheric Research (UCAR)

Seminar 5a (first day): El Niño – Southern Oscillation, ocean-atmosphere coupling and interannual variability

Seminar 5b (second day): The Future of Forecasts: The Role of the Ocean in Earth System Prediction in the 21st Century

Bonus Seminar: Impact of Climate Change on Global Viticulture

After receiving a Ph.D. in oceanography from Florida State University, Antonio Busalacchi began his professional career at NASA's Goddard Space Flight Center in 1982. He has studied tropical ocean circulation, its role in the coupled climate system, and phenomena such as El Niño. His interests include the development and application of numerical models combined with in situ and space-based ocean observations to study the tropical ocean response to surface fluxes of momentum and heat. His research on climate variability and predictability has supported a range of international and national research programs dealing with global change and climate, particularly as affected by the oceans.



In 1991, he was appointed chief of NASA's Laboratory for Hydrospheric Processes. In 2000, he was selected as the founding director of the Earth System Science Interdisciplinary Center (ESSIC) and professor in the Department of Atmospheric and Oceanic Science at the University of Maryland. Since August 2016 he has served as president of the University Corporation for Atmospheric Research (UCAR) in Boulder, Colorado. Dr. Busalacchi has been involved in the activities of the World Climate Research Programme (WCRP). From 2008-2014 he chaired the Joint Scientific Committee that oversaw the WCRP. He previously was co-chair of the scientific steering group for its sub-program on Climate Variability and Predictability. Dr. Busalacchi has served extensively on activities of the U.S. National Academies of Science, Engineering, and Medicine, including as chair of the Board on Atmospheric Sciences and Climate, chair of the Climate Research Committee, chair of the Committee on Earth Science and Application: Ensuring the Climate Measurements from NPOESS and GOES-R, co-chair of the Committee on National Security Implications of Climate Change on U.S. Naval Forces, and co-chair of the Independent Study of the Potential Environmental Effects of Nuclear War. Among his awards and honors, in 1991, Busalacchi was the recipient of the Arthur S. Flemming Award, as one of five outstanding young scientists in the entire Federal Government. In 1995 he was selected as Alumnus of the Year at Florida State University, in 1997 he was the H. Burr Steinbach Visiting Scholar at Woods Hole Oceanographic Institution, in 1999 he was awarded the NASA/Goddard Excellence in Outreach Award and the Presidential Rank Meritorious Executive Award. He is a Fellow of the American Meteorological Society (AMS), the American Geophysical Union (AGU), the American Association for the Advancement of Science (AAAS), and Honorary Member and Fellow of the International Union of Geodesy and Geophysics (IUGG), and was the 2006 AMS Walter Orr Roberts Interdisciplinary Science Lecturer. In 2016, Dr. Busalacchi was elected to the National Academy of Engineering.

As a grandson of Sicilian immigrants who made their own wine at home, Antonio comes from a family that has been in the restaurant business for over 75 years. The Busalacchi family has established nearly a dozen restaurants across North America in Milwaukee, Mexico City, and San Diego. Initially, Antonio Busalacchi took the scientific career path, but years later he found his aspiration coming full circle back to the family business. Presently, he is an Advanced Sommelier with the Court of Master Sommeliers and in 2017 he was elected to be a Director of the Guild of Sommeliers Education Foundation (SommFoundation) Board of Directors. Busalacchi is also a Certified Wine Educator, Certified Specialist of Wine, and Certified Specialist of Spirits with the Society of Wine Educators. When not raising a glass, he is an avid downhill skier and white-water kayaker.