William (Bill) J. Sydeman is the President and Senior Scientist of the Farallon Institute, a Petaluma-based non-profit, non-advocacy marine research and education organization. Dr. Sydeman established the Farallon Institute to conduct inter-disciplinary studies, critical research needed to better understand and



manage California's marine ecosystems and fisheries. Dr. Sydeman is a veteran ecologist, having studied the marine environments of the Northeast Pacific Ocean, from California to Alaska to Japan, for the past 35 years. HIs current research includes studies of the ocean ecology of salmon, impacts of climate variability and change on seabirds, marine mammals and their prey base (krill and forage fish), as well as novel methods to manage fisheries from an ecosystem perspective. Sydeman received his Ph.D. from the University of California at Davis and has published approximately 175 papers in the peer-reviewed scientific literature. He holds research professorships at the Scripps Institution of Oceanography (University of California San Diego) and the Bodega Marine Laboratory (UC Davis). He currently serves on the Science Advisory Team (SAT) for the

California Ocean Protection Council (CA-OPC) and is a member of the Section on Marine Birds and Mammals for the international North Pacific Marine Science Organization (PICES). Bill will speak on: <u>The State of the Ocean: Effects of Recent Marine Heat Waves on Fisheries and Wildlife</u>

<u>Summary:</u> Across the globe, marine heat waves are becoming more frequent and intense. This is almost certainly a result of human-caused global warming. The marine environment off northern California is amazingly rich, productive, and diverse, yet is threatened by marine heat waves and other climatic changes. Since 2000, marine heat waves in this region were observed in 2003, 2005/2006 and more recently during 2014 ("The Blob") and 2015/2016 (El Niño). As a result, there have been major impacts to fisheries (salmon and crab closures), and more may be expected in the future. Seabirds and marine mammals have also been affected. Dr. Sydeman will review and discuss what has happened over the past 15 years and what we may expect in the near future. He will also introduce a new approach to studying the coastal ecosystem off northern California, to be developed as part of the newly established, community-based *North Coast Collaborative*. Partnerships for this effort include The Noyo Center, Google Inc., and other interested parties.