

**DEPARTMENT OF CHEMISTRY AND ENVIRONMENTAL SCIENCE**  
**SEMINAR SERIES**  
**SPRING 2022**

**DATE: WEDNESDAY, MARCH 9, 2022**  
**LOCATION: TIERNAN HALL – LECT. HALL 2**  
**TIME: 1:00PM-2:20PM**

**GUEST SPEAKER**

Dr. John Reinfelder  
Professor  
School of Environmental and Biological Sciences  
Rutgers  
New Brunswick, NJ

**TOPIC**

Mercury in the marine environment from the Hackensack River to the Southern Ocean

**ABSTRACT**

Despite increasing awareness of mercury pollution and the implementation of environmental regulations and controls, human activities continue to be the dominant source of mercury to the environment. As a result of these activities, atmospheric deposition of mercury to the oceans has approximately tripled and mercury levels in the surface ocean have more than doubled since pre-industrial times. At the same time, legacy industrial mercury contamination is a persistent problem in coastal marine waters around the world. Together with other researchers, we are examining the sources, transformations and bioaccumulation of mercury in various marine ecosystems from salt marsh estuaries to the global ocean. Using chemical analyses and mercury stable isotopes, we seek to understand the production and degradation of methylmercury, the form of mercury that biomagnifies and is a developmental neurotoxin in birds and mammals, and the sources of methylmercury to marine food webs. In this talk I will highlight projects aimed at tracking mercury in New Jersey's urban salt marshes, global populations of bluefin tuna, and a coastal Antarctic food web.

**BIO**

**John Reinfelder** is Professor of Environmental Sciences in the School of Environmental and Biological Sciences at Rutgers University. His research interests include the sources, transformations, bioaccumulation and trophic transfer of mercury and other trace elements in aquatic ecosystems, the physiological ecology of marine phytoplankton, sulfur biogeochemistry, acid mine drainage, and contaminant accumulation in rice. John received a B.A. in Biology from Johns Hopkins University and a Ph.D. in Oceanography from Stony Brook University. He joined the Rutgers faculty in 1996 where he teaches environmental chemistry and aquatic chemistry.

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