



SPRING 2017 SEMINAR SERIES

DEPARTMENT OF OCEAN, EARTH, AND ATMOSPHERIC SCIENCES
3:00PM – ROOM 200 IN THE OCEANOGRAPHY/PHYSICS BUILDING
THURSDAY March 2nd, 2017

“Submersed aquatic vegetation in Chesapeake Bay: sentinel species in a changing world.”

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ABSTRACT

Chesapeake Bay, one of the most researched, monitored, managed, and iconic estuaries in the world, has undergone rapid and profound changes since European settlement over 400 years ago. Increases in human and livestock populations and subsequent changes in land use, increases in nutrient loadings, and shoreline armoring, and depletion of fish stocks have dramatically altered the ecology of the Bay. Submersed aquatic vegetation (SAV) is a foundational coastal habitat that provides numerous benefits and services to society. In Chesapeake Bay, and in many other locations, SAV species are also sentinels of environmental change due to their sensitivity to water quality, shoreline development, land use alterations, and global warming. As such, SAV has been deeply integrated into regional regulations and annual assessments of management outcomes, restoration efforts, the scientific literature, and popular media coverage. Even so, SAV in Chesapeake Bay faces many historical and emerging challenges, including rising sea levels and higher temperatures, and variability in precipitation driven by climate change, poor water clarity, invasive species, overfishing, and increasing shellfish aquaculture. I review how SAV has responded broadly to these stressors over recent decades, and provide specific case studies that redefine the status of SAV in Chesapeake Bay. Finally, I suggest new efforts that can protect and conserve this valuable resource, both in Chesapeake Bay and throughout the world.

AFTER THE SEMINAR, PLEASE JOIN US IN ROOM 404, THE ZANEVELD CONFERENCE ROOM, FOR COFFEE AND COOKIES, AND TO MEET WITH THE SEMINAR SPEAKER.