Woods Hole Oceanographic Institution

Biology Department Seminar

Thursday, April 13, 2017
Redfield Auditorium – 12:00 Noon

Multi-scale physical-biological interactions with harmful algal populations

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A harmful algal bloom (HAB) is a plankton bloom that causes negative impacts to other organisms via production of natural toxins, mechanical damage to other organisms, or by other means. These blooms can cause a wide variety of environmental, economic, and human health problems. How and why HABs occur is a complex issue. Natural physical and biological processes contribute to HABs dynamics. Characteristics of water like salinity, temperature, and nutrients together with currents and advection greatly influence HABs dynamics and distribution. The timing, extent, and duration of HABs depend also on the biology of HABs species and other organisms (biological factors). Coupling physical factors and biotic processes holds the key to understanding HABs dynamics. However, little is known about some HABs species life history and biological interactions. During this seminar, I will present results from several of my works and discuss the implications of biotic and abiotic triggers of plankton bloom initiation, development and decline.