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Department of Marine Sciences
Presents a Seminar by

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Climate fueled ecosystem changes in the Arabian Sea

Over the past two decades, the monsoonal wind driven ecosystem of the Arabian Sea and its associated upper ocean structure have undergone unprecedented change caused by warming of the Eurasian land mass and the loss of snow in the Himalayan-Tibetan plateau region. Since, 1998 wind-driven upwelling along the coasts of Somalia, Oman and Yemen has intensified, resulting in the development of anomalously large and intense phytoplankton blooms. At the same time, winter-time, convective mixing has weakened causing a dramatic shift in the microbial ecosystem of the Arabian Sea from diatoms to intense and widespread blooms of a bioluminescent mixoplankton, *Noctiluca miliaris*. *Noctiluca's* is not a preferred food for most zooplankton and therefore its emergence at the base of the food chain represents a threat to several countries where coastal marine resources are of great economic and cultural significance. This presentation will provide results from laboratory, field and remote sensing data that are shedding new light on the origins and the range expansion of these blooms. We will also show how new knowledge that we are acquiring about this organism is being used in the development of decision support tools for towards mitigating large socio-economic losses being caused by these blooms.

Host: George McManus

Time & Date: 11:00 am, Friday, January 29, 2021

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