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Department of Marine Sciences
Presents a Seminar by

Scott Gallager
[CoastalOceanVision](#)

**Threats to our waterways and how we should be
quantifying them: microplastics, harmful algal blooms,
Raman spectroscopy and hyperspectral imaging from
UAVs and space
or
what I have been doing since retiring from WHOI**

Harmful Algal Blooms (HABs) are a world-wide freshwater, brackish water and marine phenomena that occur in every coastal and inland country and annually cause millions to billions of dollars in damage and can take livestock and human lives. Microplastics are in the aquatic food chain and pose a major threat to larval stages by dilution of natural food sources. Billions of microplastics per day enter the coastal ocean from just one waste water treatment plant off of Boston, MA. New tools for measuring and quantifying both HABs and microplastics are being developed that harness photonics and spectroscopy. In this talk I will discuss how Raman spectroscopy and hyperspectral imaging are allowing us to capture the dynamic temporal-spatial scales of cell growth and toxin production along with the biophysical interactions between microplastic particles and microbial pathogenic communities.

Host: Zosia Baumann

Time & Date: 11:00 am, Friday, May 13, 2022

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