

**SEES Colloquium, Spring 2026; Science Building Room C207 and by zoom (see below for link)
Wednesday March 18th, 12:15-1pm**

This colloquium will include two short talks (15-20 mins each). After the seminars, we encourage students to attend the College Career Fair (which continues until 2:30pm in the Dining Hall).

Nitrogen & coastal acidification: A 'perfect storm' for harmful algal blooms in Long Island Sound?

Dr. Dianne Greenfield, Professor- SEES and CUNY-ASRC

Abstract: Excess nutrient (especially nitrogen-N) inputs to waterways are known to facilitate harmful algal blooms. There is also growing evidence that coastal and ocean acidification (OA) impairs ecosystems.



However, the linkages between N and OA are poorly understood. In this talk, I will describe our current Long Island Sound-based research on both N and OA, including a new project funded by NOAA's Ecology and Oceanography of Harmful Algal Blooms (ECOHAB) program to examine how N and OA combined may influence harmful algal bloom development, and what consequences that may have for regional coastal ecosystems and communities.

Bio: Professor Dianne Greenfield is a biological oceanographer who joined SEES and the ASRC in 2017. Her research emphasizes phytoplankton, microscopic organisms at the base of aquatic food webs that absorb 30-50% of anthropogenic CO₂ and generate ~half of the world's O₂ through photosynthesis. Greenfield's lab studies how human activity affects these organisms, especially in developed estuaries. Coasts comprise <1% of the Earth's surface yet are home to ~1/3 of its nearly 8.3 billion people, making these environments disproportionately strained by anthropogenic pressure.

Geohazards: Earthquakes and tsunamis along active plate boundaries; and Environmental mapping in Long Island Sound

Dr. Cecilia McHugh, Distinguished Professor- SEES

Abstract: The largest known earthquakes in subduction boundaries ruptured the entire seismogenic depth range up to the seafloor and generated enormous regionally destructive tsunamis. Continental transform boundaries cross heavily populated areas and pose high seismic risk causing huge loss of life and property.



Both types of plate boundary earthquakes are more common than originally thought. Yet we don't know when and where to expect them. We are developing new techniques to recognize features from earthquake deposits. The goal is to provide tools by which tsunamigenic megaquakes that ruptured the seafloor, and transform fault earthquakes that caused devastating loss of life can be recognized in the sedimentation record to better understand paleoearthquake recurrence and when and where to expect these events. Closer to home we are characterizing sedimentary environments in Long Island Sound and I will show highlights of this program initiated in 2013 and expected to last beyond 2028.

Bio: Distinguished Professor McHugh is a seagoing marine geologist who explores the world's oceans to learn about earthquakes, tsunamis, sea-level changes and local environmental hazards. Current programs that involve PhD, MA and undergraduate Queens College students are in Japan, Bangladesh, Haiti and Jamaica and locally in the Long Island Sound estuary.

Join Zoom Meeting: SEES seminars Greenfield & McHugh. Time: Mar 18, 2026 12:15 PM EST
<https://us02web.zoom.us/j/86159071481?pwd=VIOo4ZbPWFELQ6UXlofaOIGbz3XGAq.1>
Meeting ID: 861 5907 1481; Passcode: 811827; One tap +16469313860,,86159071481#,,, *811827# US