Woods Hole Oceanographic Institution

Biology Department Seminar

Thursday, February 15, 2024 – 12:00 noon

Assessment of sedDNA and eDNA to Detect the Presence of Human Remains

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Sedimentary DNA (sedDNA) and Environmental DNA (eDNA) are traditionally used as environmental instruments for determining species, invasive species, contamination, microenvironments, and for other scientific motives. Investigating and searching for human remains in a terrestrial or aquatic environment can be costly and time consuming. Our assessment of using sedDNA and eDNA as reconnaissance investigative tools is a new approach for analyzing and determining if humans have interacted within this environment. With the advancement of sequencing technology and reagents, in parallel with the computational and bioinformatic analytical tools, the use of these technologies has allowed us to expand our earlier research of human DNA (hDNA) in the environment, from a confirmation analytical approach to a quantifying the abundance of hDNA to determine probability and proximity of osseous location and/or historical presence. This includes the analysis of the microenvironment and taxonomy to reveal human alterations of soil and sediment microbial communities.

Virtual only! **Zoom:** https://whoi-edu.zoom.us/j/91440749670 Meeting ID: 914 4074 9670 **By phone**: Find your local number: https://whoi-edu.zoom.us/u/aBKhiSy9z