

## FUTURE 2024 Workshop March 26-28, Woods Hole, MA

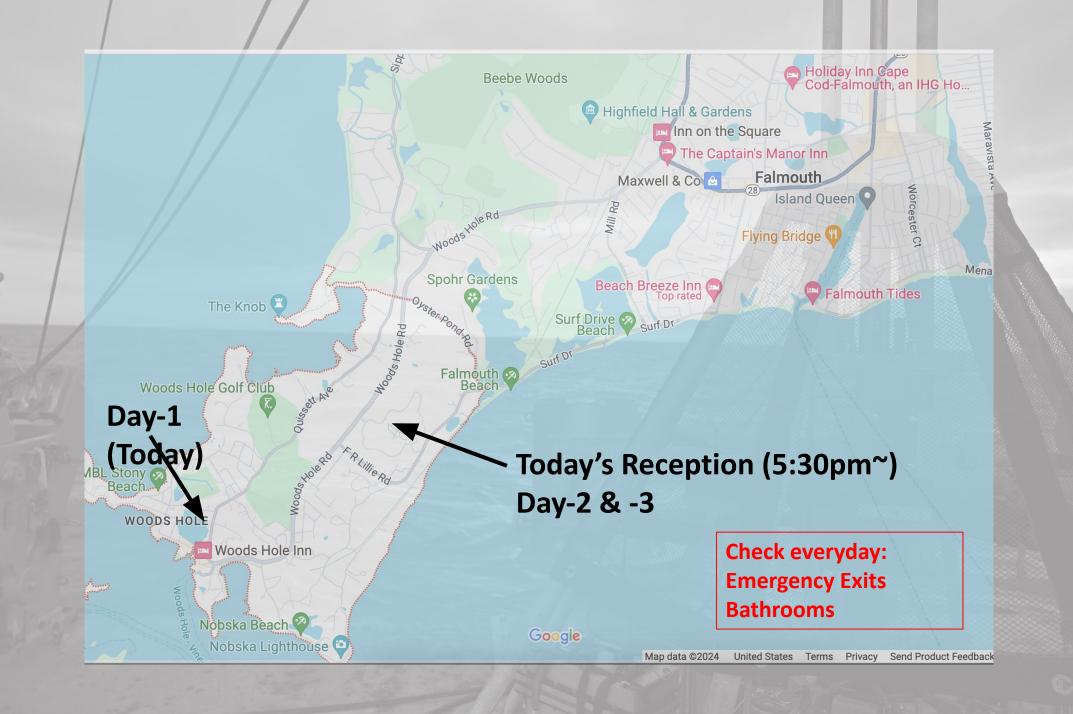
135 in-person participant from > 60 US Institutions







Schrenk (MSU) Konrad (UNLV)



## Future of US Marine Seafloor/Subseafloor sampling capabilities

Day-1: Science



Day-2: Technology

- What is the spatial and temporal extent that define your research questions?
- What are the components (e.g., what bugs, muds, etc...) of your system?
- Are you satisfied by the current sample coverage of the spatial/temporal
- How are current repositories and databases used to address your science questions?
- What is the justification for acquiring new materials?
- What are the science questions that can be addressed now (5-10 years) versus longer timescales (10-20+ years)?

P-Wave Travel Time (µsec)
P-Wave Signal Amplitude
Attenuated Gamma Counts (cps)
Magnetic Susceptibility (SI x 10^-5)
Temperature (\*C)
Electrical Resistivity Response (mV)

## Day-2: Aligning seafloor sampling technology with critical science questions

- What currently available tools, technologies, and resources are essential to your research?
- Are there tools, technologies, or resources for which the technology already exists (e.g., existed in the past, utilized by other countries) that are needed to address your critical science questions?
- What are these largest challenges to acquiring the types of samples required for your research, from the smallest scales (e.g. DNA from a bug), to regional scales (e.g. characterization of complex depositional systems), to ephemeral properties (e.g. preserving redox chemistry of the seafloor)?
- Given current US resources, to what extent are you capable of obtaining the materials needed to address your science goals? If capabilities are lacking, what is the justification for acquiring or developing new technologies?
- What types of sample curation, preservation, and data system infrastructure are needed to maximize the benefit of seafloor sampling campaigns? To what extent can existing resources be used? What new approaches or resources should be developed?



