

## Protists in Protean Seas

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Protists play an outsized role in pelagic ecosystems, exploiting their three-dimensional environment through complex associations with other organisms, mixed trophic and reproductive strategies, and metabolic adaptations to their vast and variable environment. Planktonic foraminifera are workhorses of paleoceanography but our understanding of their biology and ecology has remained so limited as to impeded environmental interpretations of their test geochemistry. In this talk, I will highlight recent advances in understanding the biology, ecology, and morphology of planktonic foraminifera and pelagic protists. Although these insights may complicate (or differ from) classic interpretations of geochemical and evolutionary signals, they present a new means for tracing how protists have responded to and shaped the pelagic environment over many millennia.