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Disentangling the signal of biology and environment in records of Cenozoic oceans

Over the last 66 million years there have been numerous perturbations and changes in Cenozoic oceans, from rapid global warming to asteroid impact and glaciation. A key challenge in interpreting these archives is that the fossilized remains of organisms are used to track both environmental and biotic change. In this talk, I will show how the incorporation of a number of biological tools and perspectives, from phylogenetic reconstructions to morphometrics and population dynamics, can provide new insight into the past dynamics of ocean ecosystems.