

Keynote lecture

Living on the edge: Polar coccolithophores

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This talk will tackle the increasing interest in coccolithophore and calcareous nannofossil ecology at high latitudes. Polar plankton communities are already experiencing the impacts of global warming and the acidification of ocean surface waters. As coccolithophores calcify and photosynthesise, they exert a major influence on the global carbon cycle. The audience will gain a better understanding of the changes taking place in these iconic regions, where coccolithophores dwell amongst some of the earth's most extreme conditions. The latest findings from International Ocean Discovery Program Expedition 383 (May–July 2019) will be presented. This expedition investigated Pliocene–Pleistocene atmosphere-ocean-cryosphere dynamics of the Pacific Antarctic Circumpolar Current, and their roles in regional and global climate and atmospheric CO₂.