

Reconstruction of the East Antarctic ice sheet variability during the last 3 myrs in the central & eastern Droning Maud Land, East Antarctica

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Reconstructing past variability of the Antarctic ice sheets is essential to understand their stability and to anticipate their contribution to future sea level rise. However, magnitude and timing of ice sheet changes during the last several million years have not been well constrained, especially in central & eastern Droning Maud Land, East Antarctica. Recently, we have carried out several field campaigns in this area to reconstruct changes in thickness, geographical extent, and timing of retreat of the East Antarctic Ice Sheet based on the detailed geomorphological survey, cosmogenic exposure dating, and lake/shallow marine sediment records coupled with glacial isostatic adjustment modeling (GIA). In this presentation, we will introduce these recent achievements from the field campaigns and discuss scientific plans for the next few seasons.

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