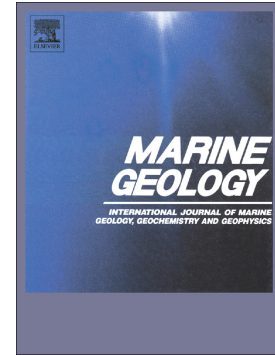


## Accepted Manuscript

Glacial retreat patterns and processes determined from integrated sedimentology and geomorphology records

Lindsay O. Prothro, Lauren M. Simkins, Wojciech Majewski, John B. Anderson



PII: S0025-3227(17)30277-3  
DOI: doi:[10.1016/j.margeo.2017.09.012](https://doi.org/10.1016/j.margeo.2017.09.012)  
Reference: MARGO 5694  
To appear in: *Marine Geology*  
Received date: 2 June 2017  
Revised date: 8 September 2017  
Accepted date: 24 September 2017

Please cite this article as: Lindsay O. Prothro, Lauren M. Simkins, Wojciech Majewski, John B. Anderson , Glacial retreat patterns and processes determined from integrated sedimentology and geomorphology records. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Margo(2017), doi:[10.1016/j.margeo.2017.09.012](https://doi.org/10.1016/j.margeo.2017.09.012)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

# Glacial retreat patterns and processes determined from integrated sedimentology and geomorphology records

Lindsay O. Prothro<sup>1</sup>, Lauren M. Simkins<sup>1</sup>, Wojciech Majewski<sup>2</sup>, and John B. Anderson<sup>1</sup>

<sup>1</sup>Department of Earth, Environmental and Planetary Science, Rice University, 6100 Main Street, Houston, Texas 77005, USA;

<sup>2</sup>Institute of Paleobiology, Polish Academy of Sciences, Twarda 51/55, 00-818 Warszawa, Poland

Corresponding author: Lindsay O. Prothro  
([lindsay.prothro@rice.edu](mailto:lindsay.prothro@rice.edu))

## Abstract

Although hundreds of cores have been collected on the Antarctic continental shelf over the past five decades, definitive interpretations of depositional environments associated with marine-based ice advance and retreat are hindered by similarities in sediment facies and a lack of geomorphic context. The recent use of an advanced multibeam bathymetry system allows for more detailed ice sheet reconstructions from glacial landforms that were previously not resolved with older generation systems. Here we present results from a recent cruise to the Ross Sea, Antarctica that focuses on integrating sediment facies analyses into a geomorphic framework to confidently determine depositional environments and sedimentological processes since the Last Glacial Maximum. Grain-size analysis, geotechnical properties, and

Download English Version:

<https://daneshyari.com/en/article/5784440>

Download Persian Version:

<https://daneshyari.com/article/5784440>

[Daneshyari.com](https://daneshyari.com)