Geophysical Research Abstracts, Vol. 10, EGU2008-A-11932, 2008 SRef-ID: 1607-7962/gra/EGU2008-A-11932 EGU General Assembly 2008 © Author(s) 2008



The Onset and Role in Climate Development of the Antarctic Circumpolar Current

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A causal relationship between the onset of the Antarctic Circumpolar Current (ACC) and the Antarctic glaciation, as hypothesised ca. 30 years ago, can no longer be supported by available evidence. New data have changed perceptions of the ACC, other causal mechanisms for glaciation have arisen, some geological indicators of ACC action are now discounted, and a wide range of ACC onset times (middle Eocene to late Miocene) has been proposed. Over the same period, the time onset of stable Antarctic glaciation has become much better known. Here we describe these changes and put forward a plan for determining the time of ACC onset, that could also assist in understanding its subsequent role in climate.