

Cambrian microfossils from glacial erratics of King George Island, Antarctica

Ryszard Wrona

Acta Palaeontologica Polonica 49 (1), 2004: 13-56

Limestone erratics in the Early Miocene glacio-marine Cape Melville Formation of King George Island, Antarctica, have yielded Early and Middle Cambrian small skeletal fossils (SSF) accompanied by calcified cyanobacteria, archaeocyath and spiculate sponges, trilobites and echinoderms. The SSF assemblage comprises disarticulated sclerites of cancelloriids, halkieriids, tomotiids, lapworthellids, palaeoscoleids, hyolithelminths, lingulate brachiopods, helcionelloid molluscs, hyoliths, and bradoriids. All 24 described species are common to Antarctica and Australia. Most are recorded here from Antarctica for the first time, including *Shetlandia multiplicata* gen. et sp. nov. and two new species *Byronia? bifida* and *Hadimopanella staurata*. The lithological and fossil contents of the boulders are almost identical with autochthonous assemblages from the Shackleton Limestone in the Argentina Range and Transantarctic Mountains. Cambrian outcrops around the Weddell Sea are a plausible source of the erratics. The fauna is closely similar to that from the uppermost Botomian Wilkawillina Limestone in the Flinders Ranges and Parara Limestone on Yorke Peninsula, and Toyonian Wirrealpa and Aroona Creek Limestones in the Flinders Ranges, as well as the Ramsay Limestone on Yorke Peninsula, all in the Arrowie and Stansbury Basins of South Australia. These very similar faunal and facies successions for Antarctica and Australia strongly support their common biotic and sedimentary evolution on the same margin of a greater Gondwana supercontinent throughout the Early Cambrian.

Key words: Problematica, microfossils, Cambrian, Gondwana, Antarctica, King George Island, Australia.

Ryszard Wrona [wrona@twarda.pan.pl], Instytut Paleobiologii, Polska Akademia Nauk, ul. Twarda 51/55, PL-00-818 Warszawa, Poland.

This is an open-access article distributed under the terms of the Creative Commons Attribution License (for details please see creativecommons.org), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

 [Full text \(5,817.2 kB\)](#)