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ASTERIACITES IN THE LOWER CRETACEOUS OF QUEENSLAND. *Memoirs of the Queensland Museum* 52(2): 88. Noteworthy specimens of the distinctive trace fossil Asteriacites were recovered from the eastern margins of the Carpentaria Basin (Great Artesian Superbasin). These specimens are associated with a diverse ichnological assemblage including Planolites and Rosellia. The trace fossils assemblage is preserved in creek bank outcrops mapped as the Gilbert River Formation. The coarse sandstones displays ripple cross lamination, ubiquitous bedding-parallel bioturbation suggesting a shallow marine moderate energy environment.

Stratigraphic relationships in the general area (AGSO, 1997) indicate that the sequence present at the site is within ten metres above basement consisting of Mid Palaeozoic volcanics of the Scardons Volcanic Group and Palaeozoic granitoids.

The age of the Gilbert River Formation is poorly constrained, with most sources citing a Jurassic-Cretaceous (Aptian) age for the unit. Burger (1986) indicated a range of *Cicatricosporosis australiensis* to *Foraminisporosis symmetricus* spore pollen Zones. These units may however be equivalent in age to elements of the Coffin Hill Sandstone at Croydon, which is Aptian (Foram. asymmetric Zone).

Large monasterid sea-star fossils are known from scattered occurrences in the Late Aptian Doncaster Formation (e.g. Kronosaurus Korner, Richmond KKM 180) and from the Albian Allaru and Mackunda Formations (QM collections).

*Asteriacites* is quite common at the locality. The present specimens (QMF42629, QMF49524–6) are preserved in marked hyporelief and are up to 132mm wide across the widest spaced arms, with a central raised area of 30mm wide. The grain size limits detail of any of the oral disc or arms. These specimens indicate abundance of nearshore sea stars in the Cretaceous and point to the high diversity of undescribed ichnotaxa in the Great Artesian Basin.

*Asteriacites* is a common ichnogenus, preserved throughout the Palaeozoic to recent (Hanzschell, 1975) and Cretaceous examples have been recently described by Bell (2005).

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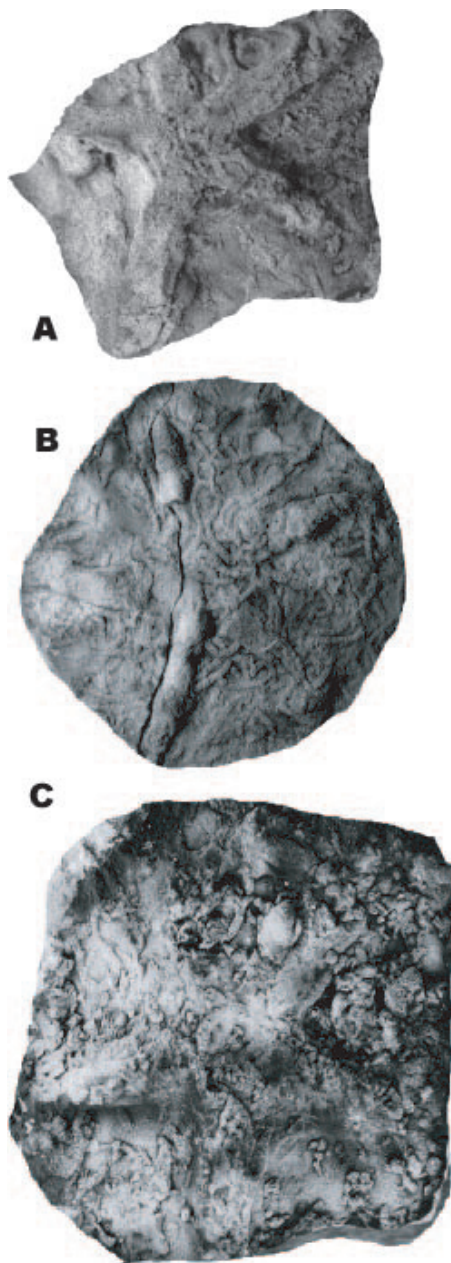


FIG. 1. *Asteriacites* isp. A. QMF42629 x0.6. B. QMF49525 x 0.4 C. QMF49526 x 0.7.