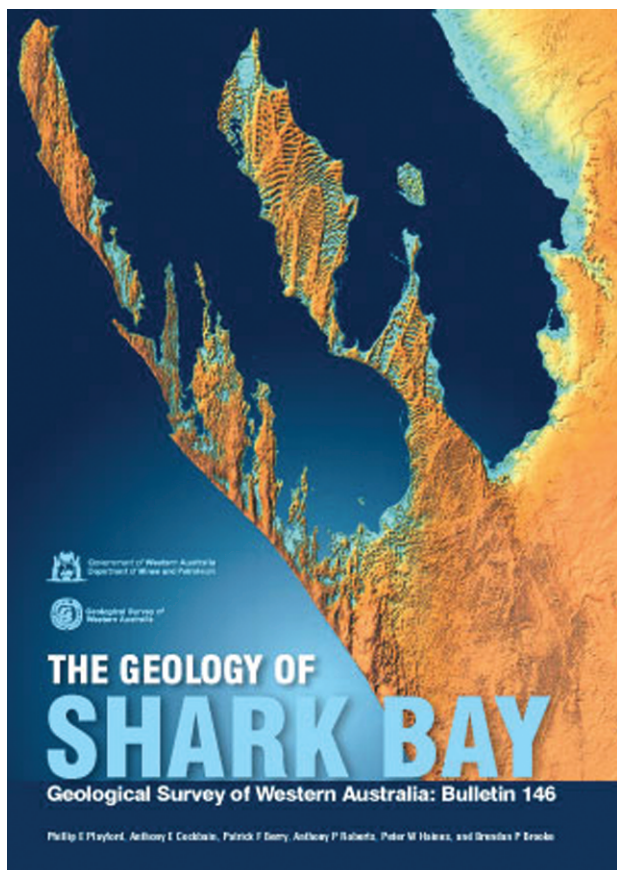


Book Review

The Geology of Shark Bay

P E Playford, A E Cockbain, F F Berry, A P Roberts, P W Haines, and B P Brooke (2014).

The Geology of Shark Bay. Geological Survey of Western Australia: Bulletin 146. \$70; a pdf file can be downloaded from the WA Department of Mines & Petroleum website, gratis.



For many coming from an earth science background, 'Shark Bay' was indelibly imprinted on their minds during the beginning stages of an undergraduate career. So, a first visit to Shark Bay has been a scientific milestone for many – including this reviewer. The experience of actually seeing living stromatolites, algal structures that already populated the globe in the Precambrian, leaves a lasting imprint. The fascination of stromatolites and an awareness of their setting in Shark Bay goes well beyond the immediate scientific community, as evidenced by the Attenborough series and volume. But what has been missing has been an informed summary overview that captures the

importance and uniqueness of the setting. The volume by Playford and co-authors provides just this, and in Playford's case, summarises work that extends over more than fifty years.

The monograph opens with an outline of the history of the region, drawing on some fascinating illustrations. The reader is then guided through an outline of the oceanography, geomorphology and geology of the region. Themes such as sealevel change, tsunamis, recognition of past climate events and tectonics places the regional focus of the work into a wider geological-environmental context. Numerous radiocarbon and luminescence dates are used to provide the chronological context of events and successions. Of considerable significance to the Quaternary geologist, is the age model, albeit tentative, that is presented for the type section of the Tamala Limestone. In discussing their Shark Bay findings, the authors draw on relevant information from related areas (e.g. Rottneest Island and Cape Range), and this is an effective way of drawing out their wider significance and relevance.

The Hamelin Coquina and stromatolites are highlighted and given, rightly so, a great deal of attention. The Holocene beach ridge successions represented by the Hamelin Coquina, provide both useful analogues for coquina reservoirs in the geological record and are supposed to act as guides to the Holocene tropical cyclone record. So, that the details presented by the authors, coupled with other work, have far-reaching implications. The discussion of stromatolites deals with the details of distribution, classification, morphology and growth rates but as part of the introduction provides an outline of the history of investigation – and the role that different investigators have played since stromatolites were first recognized in Shark Bay. Combined, this provides an interesting and useful overview of the topic for the non-specialist.

As with all work, the authors have provided the opportunity for questions to be raised and criticisms advanced - that is the way science works. Be that as it may, the authors have laid the foundation for more focused future studies and have provided an outstanding regional monograph. The number of plates/illustrations is staggering (436) – there are few authors who would be allowed such latitude! The volume is very readable, enjoyable, highly recommended and deserves a wide readership.

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