

Middle Miocene Limestone from Cape Barren Island, Furneaux Group, Bass Strait

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In 1935 Mr. F. Blake of the Geological Survey of Tasmania visited Cape Barren Island in connexion with the underground water supply at Franklin Village, which is situated on Sandford Bay in the north-west part of the Island. He collected a small sample of fossiliferous limestone which he forwarded to the late Mr. F. Chapman, who was then Commonwealth Palaeontologist. No examination of the material was made at the time. Recently it came under the notice of the writer, who has made a detailed microscopic examination of it, with the following results:—

The rock is a hard to friable, cream coloured, bryozoal limestone. The residue after washing contains numerous foraminifera and bryozoa, but the majority of the specimens are poorly preserved.

A list of species recognized is as follows:—

Foraminifera. *Textularia sagittula* Defr., *Trifarina bradyi* Cushman, *Sigmoidella elegantissima* (d'Orb.), *Globigerina bulloides* d'Orb., *Gypsina globulus* Reuss, *Planorbulinella plana* (H.A. & E.), *Cibicides ungerianus* (d'Orb.), *Discorbis orbicularis* (Terq.), *Notorotalia howchini* (Chap. Parr & Coll.), *Calcarina vermiculata* (Howchin and Parr), *Crespinella umbonifera* (Howchin and Parr), *Eponides repandus* (F. & M.), *E. concentricus* (P. & J.), *Elphidium parri* Cushman, *Amphistegina lessonii* d'Orb., *Operculina victoriensis* Chap. & Parr.

Anthozoa. *Mopsea tenisoni* Chapman.

Bryozoa. *Cellaria contigua* Mc.G., *C. depressa* Mapl., *Vincularia gigantea* Canu & Bassler, *Cribrilina terminata* Waters, *Hiantopora liversidgei* (T.Wds.), *Adeonellopsis clavata* (Waters), *Retepora rimata* Waters, *Spiropora verticellata* (Goldf.), *Mecynocia proboscidea* (M.Edw.), *Iamonea milneana* d'Orb., *I. trigona* Mc.G.

Stracoda. *Bythocypris tumefacta* Chapman.

NOTE ON THE FAUNA AND THE AGE OF THE LIMESTONE

The fossils are poorly preserved and many of the bryozoa cannot be determined even generically. The foraminiferal assemblage contains species which definitely determine the age of the bed. The commonest species is *Calcarina vermiculata*, which is one of the most characteristic forms in the assemblage in the

limestone at Batesford, Victoria. Associated with it are *Planorbulinella plana*, *Operculina victoriensis* and *Amphistegina lessonii*, all of which are common in the Batesford limestone. *Calcarina verriculata* is also present in the same horizon in the bores in Gippsland, Victoria, but is not common in that area.

The bryozoal assemblage is similar to that found at Batesford and generally in the Balcombian rocks in Victoria, as well as at King Island, Tasmania.

The ostracod, *Bythocypris tumefacta*, is a typical species in the Balcombian limestones.

The age of the limestones from Cape Barren Island is Middle Miocene. It is referred to the Batesford sub-stage which is considered a subdivision of the Balcombian stage. (Crespin, 1943.)

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