

COMMONWEALTH OF AUSTRALIA.

DEPARTMENT OF NATIONAL DEVELOPMENT.
BUREAU OF MINERAL RESOURCES
GEOLOGY AND GEOPHYSICS.

RECORDS.

1954/35

FOSSILS FROM NEAR KATHERINE, NORTHERN TERRITORY

by

A. A. Opik.

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Introduction

Mr. H. B. Owen forwarded specimens collected by Dr. G. Sleis from "somewhere near the base of the Buldiva Group about 50 or 60 miles north-east from Katherine", Northern Territory for palaeontological examination.

General

The rock - a quartz rock, "silexite"- possibly the product of silicification, may or may not be a sediment. The author has collected Cambrian trilobites from comparable "quartz rocks".

Palaeontology

The fossil, however, is real. It is a Scolithus near to Scolithus linearis Haldeman, from which it differs in the greater space between the pipes. This, however, is not diagnostic. If the pipes are vertical against the bedding, which cannot be determined from the specimens, it is more likely to be of "linearis" type. The author remembers observing Scolithus-like pipes in the sandstone in the Hann Range, about 60 miles north of Alice Springs. The most likely age to be given for this sort of Scolithus is lower Lower Cambrian. However, it is only a tentative determination in view of the many uncertainties connected with the present sample.

Scolithus-like "pipe rocks" occur also in a Palaeozoic (Ordovician?) sandstone in the Alice Springs area and in sandstones connected with the West Coast Conglomerate at Zeehan in Tasmania, which all differ in the size of the pipes and the space between them; and, perhaps, in Mesozoic (Jurassic) sandstones of the Camooweal region. The latter, however, seems to be of the Diplocraterion type and is quite different in having a U-shaped pipe.

Stratigraphic Significance.

If the occurrence and the interpretation of the pipes as fossils are correct, the author's opinion is once more confirmed that the "Upper Proterozoic" or "late pre-Cambrian" rocks of central and northern Australia are pre-Middle Cambrian, and it is only a custom to refer to them definitely as "pre-Cambrian". A lower to middle Lower Cambrian age of such rocks is an equal possibility.

The specimen is now in the Bureau collection, Registered No. F21,528.