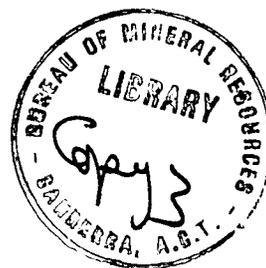


COMMONWEALTH OF AUSTRALIA.

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

RECORDS.

1961/9



REPORT ON PLANT FOSSILS FROM BANDANNA FORMATION,
CARNARVON CREEK, QUEENSLAND.

by

Mary E. White.

The information contained in this report has been obtained by the Department of National Development, as part of the policy of the Commonwealth Government, to assist in the exploration and development of mineral resources. It may not be published in any form or used in a company prospectus without the permission in writing of the Director, Bureau of Mineral Resources, Geology and Geophysics.

REPORT ON PLANT FOSSILS FROM BANDANNA FORMATION,
CARNARVON CREEK, QUEENSLAND.

by

Mary E. White.

RECORDS 1961/9

Mines Administration^{PM} Ltd, Brisbane, submitted a suite of outcrop specimens from Oil Shale Gully off Carnarvon Creek, Queensland (Lat. 25° 01' 15", Long. 148° 18' 30" E) for palynological examination. One of these, C.8, had determinate plant remains on two separate pieces of siltstone. The specimen is described by Mr. A.C.M. Laing of Mines Administration^{PM} Ltd as coming from the upper Bandanna Formation, 122 to 124 feet from its top.

The following are identified:-

- Glossopteris angustifolia Brong. (Figure 1 shows portions of three leaves.
Figure 2 shows portions of two leaves.)
- Glossopteris scale leaves. (A and B in Figure 2.)
- Gangamopteris angustifolia McCoy. (Figure 3. Portion of leaf including apex.)

Gangamopteris angustifolia has been recorded from the Lower Bowen Series in Queensland (Lucky Valley Goldfield, Walkom 1922) and the Collie Coal Measures in Western Australia. It occurs in the Raniganj Coal Field of India.

In general, the genus Gangamopteris is typical of Lower Permian horizons and becomes increasingly rare in later beds. It makes its first appearance in beds of Uppermost Carboniferous age in India and South Africa. It is found in the Lochinvar "stage" of the Lower Marine "Series" in New South Wales and interbedded with glacials at Bacchus Marsh in Victoria. In Queensland it is recorded from Lower Bowen Series only, not Middle Bowen (Walkom 1922). It is a prominent member of the Agate Creek Volcanic Series of North Queensland collected by the Bureau of Mineral Resources in 1949.

As far as is known Gangamopteris angustifolia has not been recorded above Middle Permian.

Glossopteris angustifolia is recorded from Belmont, New South Wales, and from Blackmans Swamp, Newcastle. It is common in the Agate Creek Volcanics flora. It is a prominent member of the Wankie Flora in Southern Rhodesia, and of the Lower Permian floras of South Africa described by Plumstead (1956, 1958). It occurs plentifully in the Talchir and Raniganj floras of the Lower Gondwanas in India.

The Glossopteris scale leaves are similar to those described by Walkom (1928). Scale B is of particular interest as the shape of the apex is the same as that of fertile scale leaves referred to Lidgettonia by Hamshaw Thomas (1958).

The plant fossils present in these specimens are believed to indicate an Uppermost Carboniferous or Middle Permian age.

The information contained in this report has been obtained by the Department of National Development, as part of the policy of the Commonwealth Government, to assist in the exploration and development of mineral resources. It may not be published in any form or used in a company prospectus or statement without the permission in writing of the Director, Bureau of Mineral Resources, Geology and Geophysics.

SELECTED REFERENCES

- FEISTMANTEL, O. 1879-1881. Fossil Flora of the Gondwana System. Palaeont. Indica III. 1-4.
- HAMSHAW, Thomas H. 1958 - Lidgettonia, a new type of fertile Glossopteris. Bull. Brit. Mus. Nat. Hist. III. 5.
- PLUMSTEAD, E.P., 1956 - On Ottokaria, the fructification of Gangamopteris. Trans. Geol. Soc. S. Afr. LIX, 211-221.
- PLUMSTEAD, E.P. 1958 - Further fructifications of the Glossopteridae and a provisional classification based on them. Trans. geol. Soc. S. Afr. LXI, 52-76.
- PLUMSTEAD, E.P. The Habit of growth of the Glossopteridae. Trans. geol. Soc. S. Afr. LXI, 81-93.
- WALKOM, A.B. 1922 - Palaeozoic Floras of Queensland, Part I. Qld. geol. Surv. Publ. 270.
- WALKOM, A.B., 1928 - Notes on some additions to the Glossopteris flora in N.S.W. Proc. Linn. Soc. N.S.W. LIII. 5, 555-564.

PLATE I.

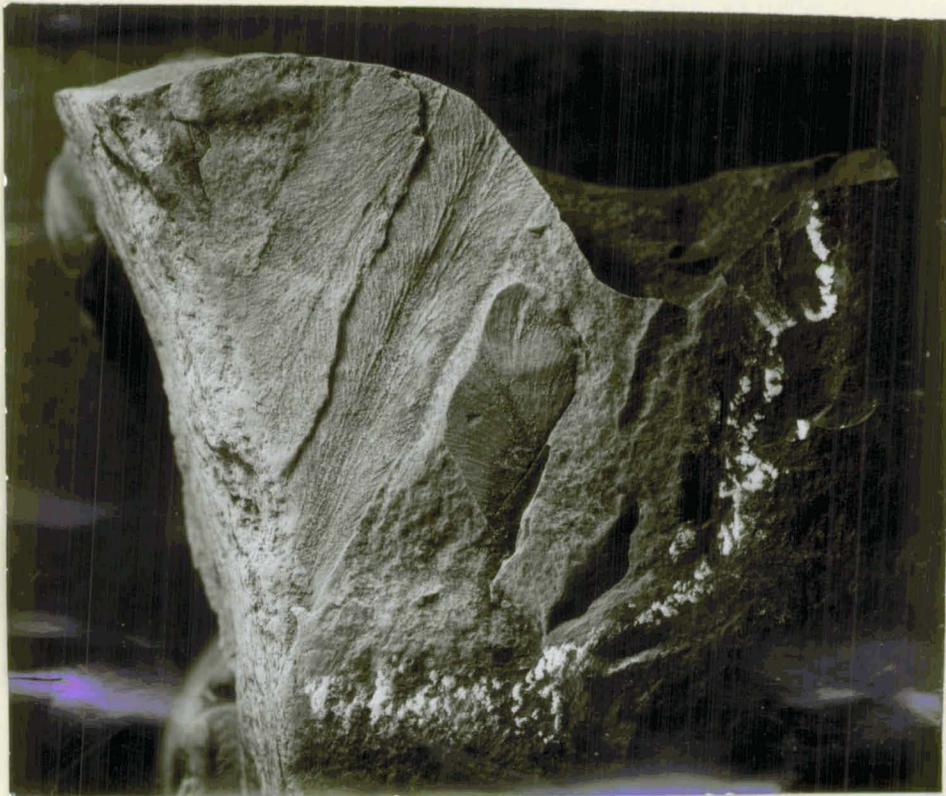


Figure 1. Glossopteris angustifolia Brong. Magn. X 2.

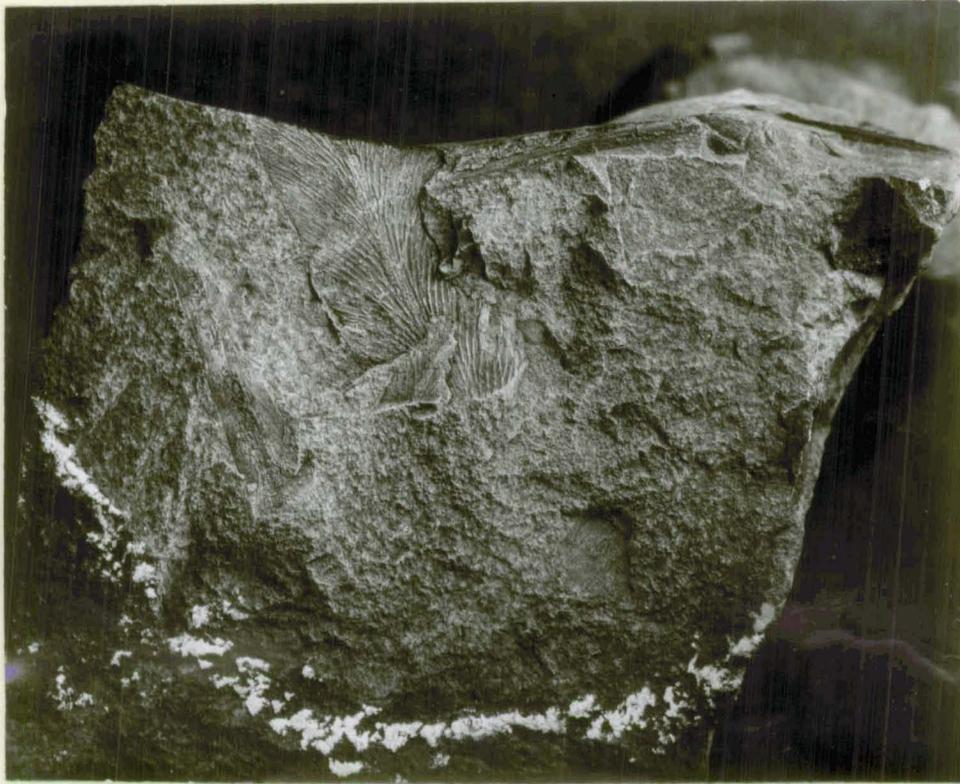


Figure 2. Glossopteris angustifolia and Glossopteris
Scale leaves A & B. Magn.X 2.



Figure 3. Gangamopteris angustifolia McCoy. Magn.X 2.