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RECORDS.

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MESOZOIC PLANT FOSSILS FROM THE TARLTON RANGE,
NORTHERN TERRITORY.

by

M.E. White

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During the 1959 field season, plant remains were collected from a mesa on top of the Tarlton Range, Northern Territory. The collection, T 343, was examined and reported on but no determinate fossils were present.

In the Tarlton Range, Middle Ordovician siltstone and sandstone are overlain unconformably by possibly fluvioglacial sediments of the Tarlton Formation. The section is approximately 75 feet thick, comprising a basal poorly sorted conglomerate (up to 20 feet thick) grading up into interbedded and poorly sorted sandy siltstone and silty sandstone, much of it micaceous. Laterisation has been strong and all the plant remains have been collected from within the lateritic profile (mainly pallid or mottled zones).

The fossil locality was revisited during the 1960 field season and the present collection -T 423 was made. Preservation is poor and very few determinate impressions occur in the specimens. No fine detail is preserved and identifications are therefore tentative.

The following plants are present:

1. Linguifolium denmeadi Jones and de Jersey.

Part of a lamina is present showing a midrib 1.7 cm. long with lateral veins arising at an acute angle and bifurcating in the manner characteristic of the species. The venation in this case is clearly visible and the identification of the species is in little doubt. This leaf fragment is similar to leaves occurring at Loc. Rn. 63 in the South West Canning Basin (Records 1957/64) where they were associated with Elatocladus etc. and believed to indicate a Triassic or Jurassic age. The type specimen for the species was recorded from the Ipswich Coal Measures in Queensland. (Jones and de Jersey, 1947).

2. Dicroidium odontopteroides (Morris) Gothan.

Two fronds are referred tentatively to this species. Both are poorly preserved with details of venation partly obscured, but each shows features consistent with D. odontopteroides. Townrow (1957) regards Dicroidium as a predominantly Triassic genus which may persist into Lower Jurassic in some cases.

3. Elatocladus sp.?

A very poorly preserved fragment is referred to Elatocladus?. Such conifer fragments occur plentifully in Upper Triassic and Jurassic strata in Australia.

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4. Indeterminate ribbon-like impressions which may be stems or could possibly be bits of elongated lamina such as occur in Phoenicopsis or Czekanowskia.

5. Small fragments of fern frond: Preservation is poor and no safe identification can be made. They resemble most closely Coniopteris delicatula (Shirley) such as occurs in the Ipswich Series in Queensland (Walkom 1925).

6. Fragment of lamina ? with parallel venation which might be part of a segment of Nilssonina or Ctenis but which might be part of an Equisetalean stem impression.

Conclusions on the age of the specimens:-

Although the preservation of the impressions is unsatisfactory, (apart from Linguifolium denmeadi), the weight of evidence seems to indicate Triassic or Lower Jurassic age.

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- WALKOM, A.B., 1925 - Mesozoic Floras of Queensland. Qld.geol.Surv.Publs. 252, 257, 259.