

ON *GANGAMOPTERIS WALKOMII* SP. NOV.

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Plates 25-27. Text Fig. 1

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Abstract

Gangamopteris walkomii sp. nov. is erected to contain certain small *Gangamopteris*-like leaves from the Permian of New South Wales. These leaves grew spirally on long and short shoots, and were deciduous.

Introduction

A large number of specimens bearing the proposed species were found at Duncan's Pass, Narrowneck, near Katoomba, New South Wales, by two collecting expeditions in 1949. Messrs H. O. Fletcher and R. O. Chalmers collected the specimens. From the way in which the specimens were grouped together, it is probable that all were derived from the same plant. The collection is now housed at the Australian Museum, Sydney, N.S.W. All specimens bear a registered fossil number of the Museum's collection.

Gangamopteris walkomii sp. nov.

DIAGNOSIS

Leaves, obovate, becoming elliptical then rhombic at maturity; apex obtuse to rounded; leaf base narrowing gradually to a short, thick petiole; margin entire; primary venation absent in the mature leaf, secondary venation dichotomously branching and anastomosing forming elongate reticulate meshes arising from a central region of strongly developed parallel veins, or a midrib in the developing leaf; venation strongly arcuate intersecting margin in the upper third at 90 degrees, varying to less than 30 degree near petiole. Leaves arising from a closely packed spiral as tufts along a stem of unknown identity; abscission apparently occurring before the number of leaves exceeded 12 or slightly more, although leaves grew from more than one point along the stem at any one time. No stem elongation occurring after expansion of leaves of short shoots. Short shoot branching from within axil of leaf on shoot of unlimited growth. Stomata absent from adaxial leaf surface.

Type specimen: Australian Museum, F43563, the leaf as designated in the caption to fig. 7.

Paratype: Australian Museum, F43564, designated to show the long and short shoots, and habit.

Locality: Duncan's Pass, Narrow Neck, near Katoomba, New South Wales.

Horizon: Lithgow Coal Measures, of Permian age.

Specific name: The species is named in honour of Dr A. B. Walkom, of Sydney, N.S.W., palaeobotanist, and one time director of the Australian Museum, Sydney.