

*PALMOXYLON MATHURI* SAHNI FROM THE DECCAN INTERTRAPPEAN BEDS OF MOGHAON KALAN, M. P., INDIA

The present specimen is represented by a small piece of light brown colour, having only the central zone, measuring 6.5 cm in length and 3.1 cm in diameter.

The fibrovascular bundles are irregularly oriented and are small measuring 0.3 to 0.4 mm  $\times$  0.12-0.3mm. The frequency of fibrovascular bundles is 80/sq cm. The f/v ratio is 2/1 to 4/1. Dorsal sclerenchymatous sheath is reniform and its cells are slightly lignified. The xylem is mono-to trivascular with scalariform thickenings. Leaf-trace bundles are present. The fibrous bundles are slender (0.03-0.119 mm thick) and numerous, 26-43/sq mm. They appear to be suspended in the anastomosing plates of parenchymatous cells. Stegmata occur in the fibrous bundles. The silica bodies are spherical. The parenchymatous ground tissue is lacunar. The cells are elongated and form a loose network; they are 0.12-0.22 mm in length and 0.05-0.07 mm in width. Radiating parenchyma is present. Phloem is not preserved.



Fig. 1. T. S. of stem showing highly lacunar ground tissue with fibrovascular and fibrous bundles.  $\times 45$

The structural features of this fossil palm indicate that its closest affinities are with the already described *Palmoxylon mathuri* Sahni which has been first described from the Cretaceous of Lackpoor (Lakhanpur) in Kutch (SAHNI, 1931, 1964). So far, *P. mathuri* has not been reported from the Eocene of the Deccan Intertrappean series.

Though the present fossil has close affinities with *P. mathuri*, it shows certain variations from it, viz. (i) presence of stegmata associated with the fibrous bundles which are absent in *P. mathuri*, (ii) the fibrovascular ratio in *P. mathuri* is 2/3-1/8 but in the present specimen it is 2/1-4/1.

## REFERENCES

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ANIL K. AGARWAL AND C. LALITHA\*  
*Department of Botany, Lucknow University, Lucknow*

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\*Present address: Birbal Sahni Institute of Palaeobotany, Lucknow.