

solution in comparison to the control. Moreover, in 1 : 10 dilution, greater inhibition occurs than in 1 : 100. Of the varieties tested, maximum root inhibition has been observed in Kumargore which is followed in descending order by Basmati, NC 1626, Jhingasal, NC 1281, the minimum being in Satika. Regarding shoot growth, there is response of toxin inhibition but not to the same extent as the root response.

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**OCCURRENCE OF HIBISCOXYLON
INTERTRAPPEUM SP. NOV. FROM
THE DECCAN INTERTRAPPEAN
SERIES OF MAHURZARI, NEAR
NAGPUR (M.P.), INDIA**

A FOSSIL axis, 6 cm × 5 cm, was collected from Mahurzari, near Nagpur (Maharashtra State) by one of us (K. A.), in December 1969. The wood is of diffused porous type and does not show growth rings. The bark and peripheral portion of the wood are well preserved but the central portion is missing (Fig. 1 and Photo 1).

The vessels can be seen even with the naked eye (Photo 1). In the middle portion of the wood they are solitary but occur closely packed in peripheral region; they also occur in two to four in radial rows. The vessels are small to medium and vary from 165 μ to 300 μ in length and 49 μ to 198 μ in width. Vessel perforations are simple and somewhat oblique (Metcalf and Chalk),⁵ the vascular pits are alternate to subopposite.

Wood parenchyma is paratracheal, confluent and occurs associated with the vessels (Photo 1). Xylem rays are closely packed, heterogeneous and may be uniseriate.

The rays in longitudinal plane are fusiform in shape. Uniseriate rays consist wholly of upright cells (Webber^{6,7}). Height of xylem rays varies from 1-25 cells.

Tile cells of *Pterospermum* type, mostly in a single row, are present (Chattaway¹⁻³); rarely they may be present in two rows (Figs. 2, 3 and 4).

The ground mass of the wood consists of fibrous cells. Fibres are tapering and well preserved, they are angular with walls about 16 μ thick. They are libriform and measure upto 1 mm in length. The peripheral zone of bark consists of fibrous bands alternating with parenchymatous bands (Fig. 1 and Photo 1).

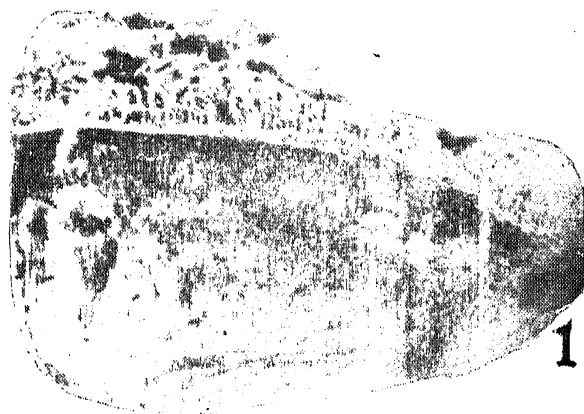
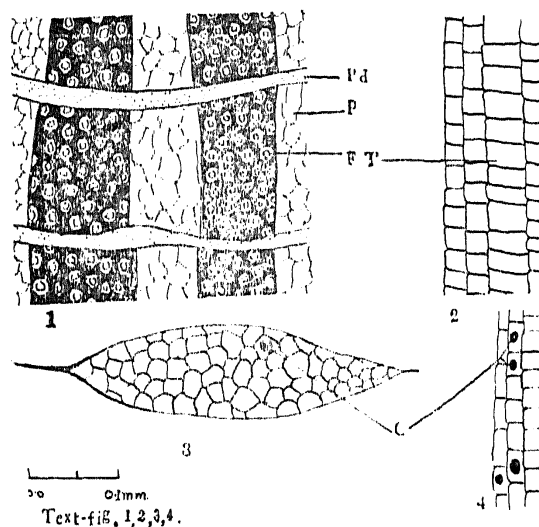


PHOTO. 1. A photograph of fossil wood in transverse plane showing bark and wood portion, × 5.

Probably crystals of calcium oxalate are present in the parenchymatous cells of the xylem rays as well as other parenchyma cells (Figs. 3 and 4).



FIGS. 1-4 Fig. 1. T.S. of bark of fossil wood showing fibrous bands alternating with parenchymatous bands. Fig. 2. Single xylem ray in R.L.S. plane showing tile cells of *Pterospermum* type. Fig. 3. Xylem ray in T.L.S. plane Fig. 4. Xylem ray in R.L.S. plane showing crystals. (Pd, Periderm; P, Parenchyma; F, Fibres; T, Tile cells; C, Crystals.)