

TWO SPECIES OF *HYPOXYLON* FROM THE DISTRICT OF JALPAIGURI, WEST BENGAL

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Two species of *Hypoxylon* Bull. ex Fries, viz. *Hypoxylon hypomiltum* Mont. and *Hypoxylon uniapiculatum* (Penz. & Sacc.) Mill. have been collected, figured and described from the Jalpaiguri district of West Bengal during 1986-88. Out of the two species, *Hypoxylon uniapiculatum* (Penz. & Sacc.) Mill. is a new record from India and *H. hypomiltum* Mont. is reported first time from the State of West Bengal.

INTRODUCTION

The genus *Hypoxylon* is one of the largest in the Xylariaceae of the Class-Ascomycetes. Bulliard in 1791 for the first time created the generic name *Hypoxylon*. The species of the genus *Hypoxylon* differs greatly in their structure and colour of the stromata and the nature of ostiole and accordingly, constitute four sections : 1. Section *Hypoxylon* 2. Section *Papillata* 3. Section *Annulata* 4. Section *Applanata*. Of the two species, *H. hypomiltum* Mont. belongs to Section *Hypoxylon* for its effused stromata and umbilicate ostiole and *H. uniapiculatum* (Penz. & Sacc.) Mill. is under Section *Applanata* for its applanate stromata and papillate ostiole.

1. *Hypoxylon hypomiltum* Mont., Ann. Sci. Nat. 2nd ser. 13 : 356. 1840.

Synonymy : *H. subgilvum* Berk. & Br., Jour. Linn. Soc. 14 : 120. 1873.

H. fendleri Berk. ex Cke., Grevillea 11 : 132. 1883.

Sphaeria meconica Berk. & Br., ined. Ceylon. Kew herb.

Stromata variable, effused, pulvinate with very prominent perithecial elevations, orbicular to irregular, leathery, 0.4-2.5 cm in diam. and 0.5-1.5 mm thick, ectostroma bright yellow and brown with age, surface tuberculate from projecting perithecia, entrostroma well developed ; *perithecia* numerous in peritheral layer, monostichous, semiglobose to oblong, $350-462 \times 154-266 \mu\text{m}$, in diam. with

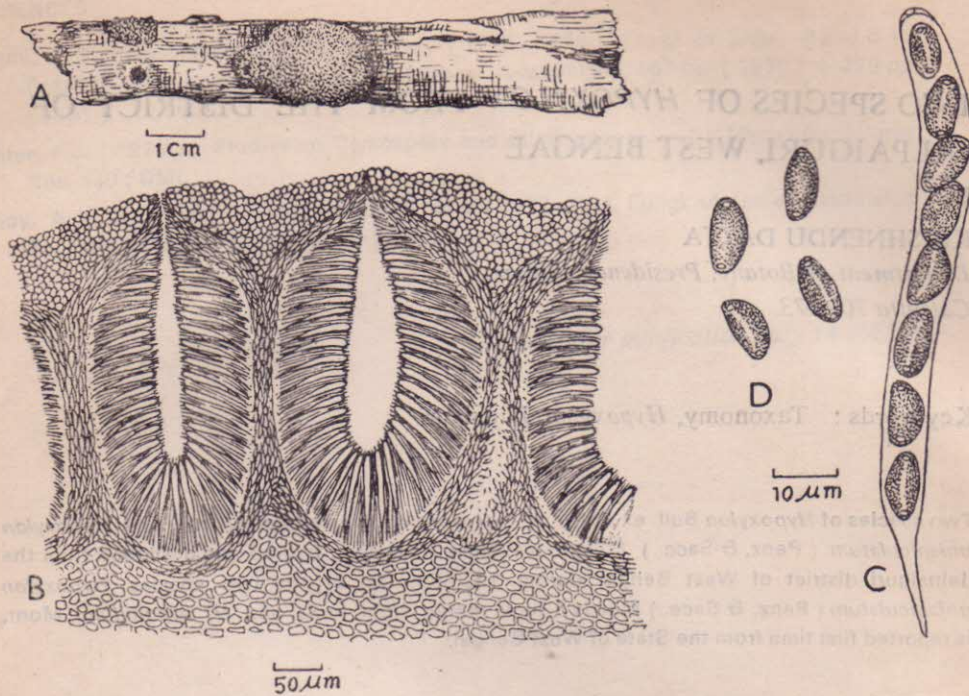


Fig. 1: *Hypoxylon hypomiltum*

A. Habit; B. Section through stroma showing perithecia;
C. Ascus showing arrangement of ascospores; D. Ascospores.

punctate ostiole in the centre of minute disc, $29.7 \times 49.6 \mu\text{m}$ in diam.; *asci* arising from the base and sides of perithecia, numerous, cylindrical, unitunicate, long stipitate, thin-walled, apex round with a flattened ascus ring of amyloid plug, 8-spored, p.sp. $72.6-89.1 \times 7.26 \times 8.3 \mu\text{m}$, with many copious filiform paraphyses; *ascospores* uniseriate or obliquely uniseriate, elliptical to navicular, often inequilaterally elliptical, unicellular, smooth-walled, dilute yellow to dark brown, $9.9-13.2 \times 4.95-6.3 \mu\text{m}$ (Fig. 1).

Habitat : On an unidentified log of wood.

Locality : Murti forest, Jalpaiguri, West Bengal, India.

Specimen studied : PCC 4854 (=IMI 314008a), leg. K. Datta, October 17, 1986.

2. *Hypoxylon uniapiculatum* (Penzig & Sacc.) Miller A monograph of the world species of *Hypoxylon*, University of Georgia Press, Athens, P-111, 1961.

Synonymy : *Nummularia uni-apiculata* Penz. & Sacc., *Malpighia* 11 : 494. 1897, and *Icones Fung.* Javan p. 28, t. 20, f. 1. 1904.

N. papyracea Rehm, *Leaflet Phil. Batany*, 6 : 2208. 1914, and Sydow, *Ann. Mycol.* 15 : 212. 1917.

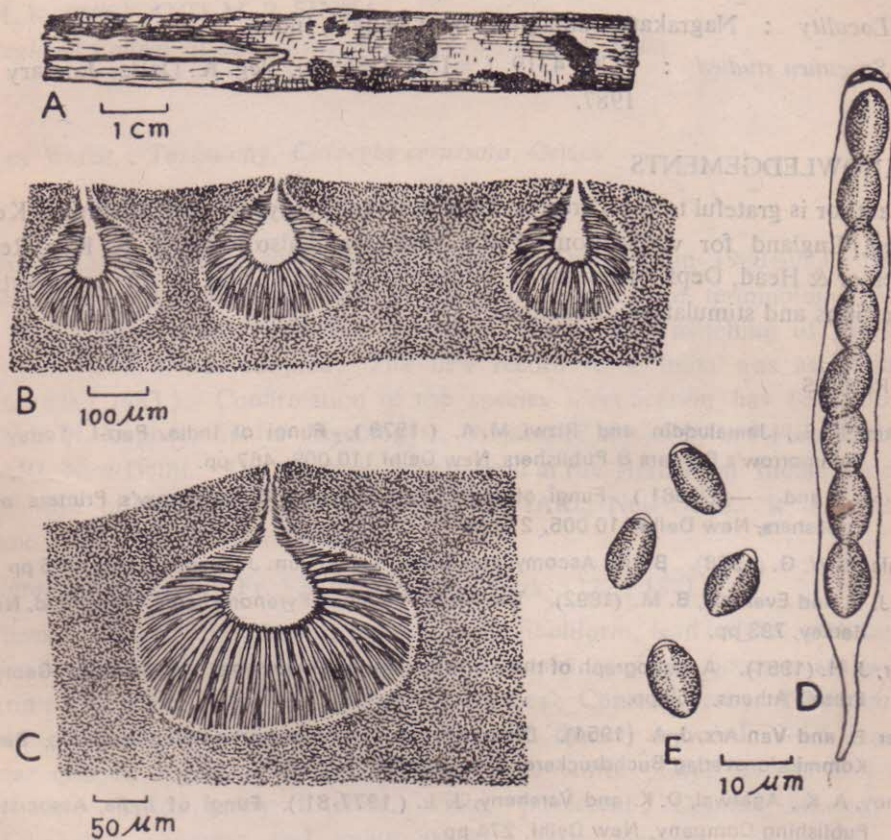


Fig. : *Hypoxylon uniapiculatum*

A. Habit : B. Section through stroma showing perithecia ; C. Section through perithecium ; D. Ascus showing arrangement of ascospores , E. Ascospores.

Stromata prominent, superficial, plano-convex to applanate, sessile, scattered in small patches. suborbicular to irregular, sometimes slightly effused, 0.4-1.2 cm in diam. and upto 1 mm thick, brown when young, black at maturity, nearly smooth, texture of the mature dried stroma very hard and carbonaceous ; *perithecia* numerous, minute, in peripheral layer, monostrichous, ovoid to globose, 280-350 μm in diam., ostiole slightly raised. punctate ; *asci* arising from the base and sides of perithecia, numerous, apex well-developed with amyloid plug, cylindrical,

stipitate, unitunicate, thin-walled, ascus ring reduced, octosporous, p. sp. 79.2-95.7 x 6.9-7.9 μm , with numerous copious filiform paraphyses; *ascospores* uniseriate or diagonally uniseriate, oblong-ellipsoidal, with one end round and the other with a hyaline subtriangular to globose apiculus, 1.7-2 μm in diam., unicellular, light to dark brown, 9.9-11.6 x 5.9-6.6 μm germ slit longitudinal.

Habitat : On an unidentified log of wood.

Locality : Nagrakata, Jalpaiguri, West Bengal, India.

Specimen studied : PCC 4319 (=IMI 318695), leg. K. Datta, January 2, 1987.

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