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ANNULOHYPOXYLON Y. M. JU., J. D. ROGERS AND HSIEH, NEW GENERIC REPORT TO THE FUNGI OF INDIA

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Abstract:
Xylariaceae belongs to class Ascomycetes. Ascomycota is the largest group of fungi representing the rank of Phylum or Division in the Kingdom Fungi. The number of genera reported in the world is 47, 13 genera have been reported from India and 06 from Maharashtra till date. Present paper reports two species of *Annulohypoxylon* Y. M. Ju, J. D. Rogers and Hsieh viz. *A. moriforme* (Henn.) Y. – M. Ju, J. D. Rogers & H. M. Hsieh and *A. cohaerns* (Pers. : Fr.) Y. M. Ju. et. al. from Kolhapur district, Maharashtra. This genus has been reported for the first time in India.
Keywords : *Annulohypoxylon*, Ascomycota, Taxonomy, Fungi.

Introduction

The genus *Annulohypoxylon* was raised by Ju. Y. M.*et.al* in 2005 and *A. truncatum* (Schwein : Fr) Y. M. Ju *et. al.* as the type species, segregating some species of *Hypoxylon* in which the perithecia with papillate opening / ostiole higher than the stromal level and encircled by the flattened disc. It is a stromatic genus and all other characters are as found in the genus *Hypoxylon*. This genus is known by 27 species, with worldwide distribution (Hsieh *et. al* 2005; Ju and Rogers, 1996). The genus is not known in India. Thus, it is a new generic record to the fungi of India

Material and Methods

Fresh material was collected during rainy season and preserved by drying in oven. Detail structures and microphotography was done using research microscope and routine laboratory techniques. Perispore dehiscence was tested with 10% KOH. Stromatal extractable pigments were studied using 10% KOH and correct identification was done using mycological colour chart (Rayner, 1970). Photography was done using Nikon digital camera. Specimens were deposited in Herbarium Cryptogamae Indiae Orientalis (HCIO) New Delhi, India and accession numbers obtained.

Key to species of *Annulohypoxylon* studied;

1. Ostiloar disc upto 0.5 mm diameter and KOH extractable pigment is green ..... *A. moriform*

1'. Ostiloar disc less than 0.5 mm diameter and KOH extractable pigment is yellow is yellowish – green or absent .....*A. cohaerens*

Results:

***A. cohaerns* (Pers. : Fr.) Y. M. Ju.** *et. al,* Mycologia 97 : 857, 2005.

Plate I: A to C and Text Plate II: a to b

≡ *Sphaeria cohaerens* Pers., Tent. Disp. Meth. Fungi: 21,1797.

≡ *Hypoxylon cohaerens* (Pers.: Fr.) Fr., Suma Veget. Scand.: 384,1844.

Stroma sub – globose, spreading , but definite, flattened, crustose, 2 – 4 cm in diameter; KOH extractable pigment greenish to yellowish pigment; perithecia sunken in the stromatic crust, perithecia annulate, spherical to elongated, black, 250 – 350 µm in diameter; asci stipitate, cylindrical, 8 spored unitunicate, J +ve, 125 – 155 x 5 – 7 µm; ascospores are brown colour, 12 – 15 x 5 - 7 µm; grem slit not observed ; perispore indehiscent.

Habitat : on rotten wood, Rajaram college campus, Kolhapur 16 – 07 – 2013, A. R. Patil & K. P. Patil.

Remarks : Vasilyeva, Larissa, N. *et.al* (2007) have reported from America on the wood of *Fagus* sp. (F. fagaceae). It is said by the authors that this is a very common species and often with *H. fragiforme*, In most of the respect present collection agrees well to this species and thus, referred to it. It makes a new record to the fungi of India. It is papillate rather then annulate taxa.

***A. moriforme* (Henn.) Y. – M. Ju, J. D. Rogers & H. M. Hsieh**, Mycological 97 : 859, 2005.

Plate I: D to F and Text Plate II: c to d

≡ *Hypoxylon moriform* P. Henn,

≡ *Spheria moriform* Fr., Obs. Mycology 9: 169,1815

≡ *Hypoxylon moriforme* (Fr.: Fr.) Fr., Suma Vege. Scand, 384,1849.

Stromata erumpent – superficial, effuse, crustose, spreading, 2 – 5 cm in diameter, 1 – 2 mm thick, gregarious, confluent, black – shining, with coarsely papillate ostiles; KOH extractable pigment green ; ostiolate disc upto 0.7 mm in diameter., asci unitunicate, stipitate, 8 – spored, J +ve, 140 – 160 x 5 – 6 µm; Ascospores brown, one celled, ellipsoid – inequilateral, 8 – 12 x 3.5 –

5 µm; perispore dehiscent in KOH 10%; germ slit not seen

Habitat : on the dead wood of *Memecylon umbellatum* Burm. (F.- Melastomataceae), 06 – 03 – 2015, Shenawade (Tal.– Shahuwadi, Dist – Kolhapur, M.S.) A. R. Patil and K. P. Patil.

Remarks : This species was originally known as *H. moriforme* P. Henn. and reported from England, Ireland, Hawaii Island, America. There is a variety viz. *A. morifrome* (Henn.) Y. – M. Ju et.al var. *macrosporum* Hladki and A. I. Romero reported from Argentina based on larger Ascospores 9 – 10.5 x 4 – 5.5 µm (Hladki, A.I. et.al., 2009). But the species described and reported by Larissa N. Vasilyeva et. al. (2007) in which they given the size of the Ascospores 8 – 12 x 3.5 – 5 µm. Then, how the variety reported from Argentina is *macrospora* (=large spores)? It appears strange. This species and the genus *Annulohypoxylon* have been reported for the first time in India.

Plate I:

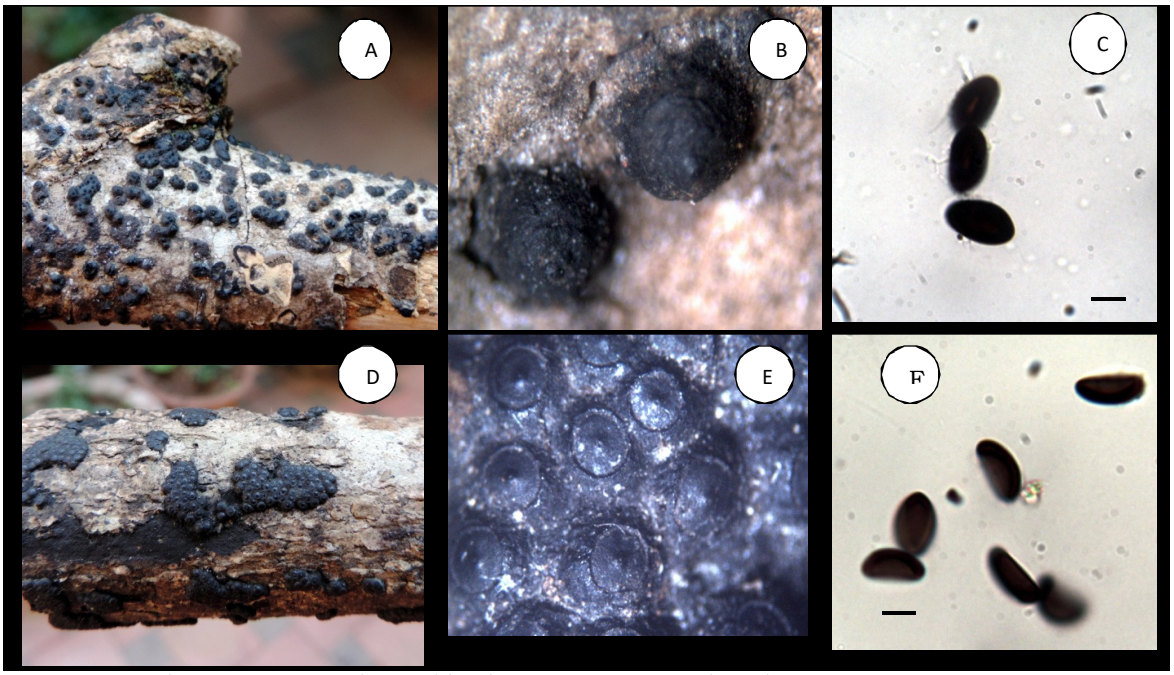

Figure : A and D Stroma, B and E perithecia, Ascospores C and F= 5mm.

Text Plate II:

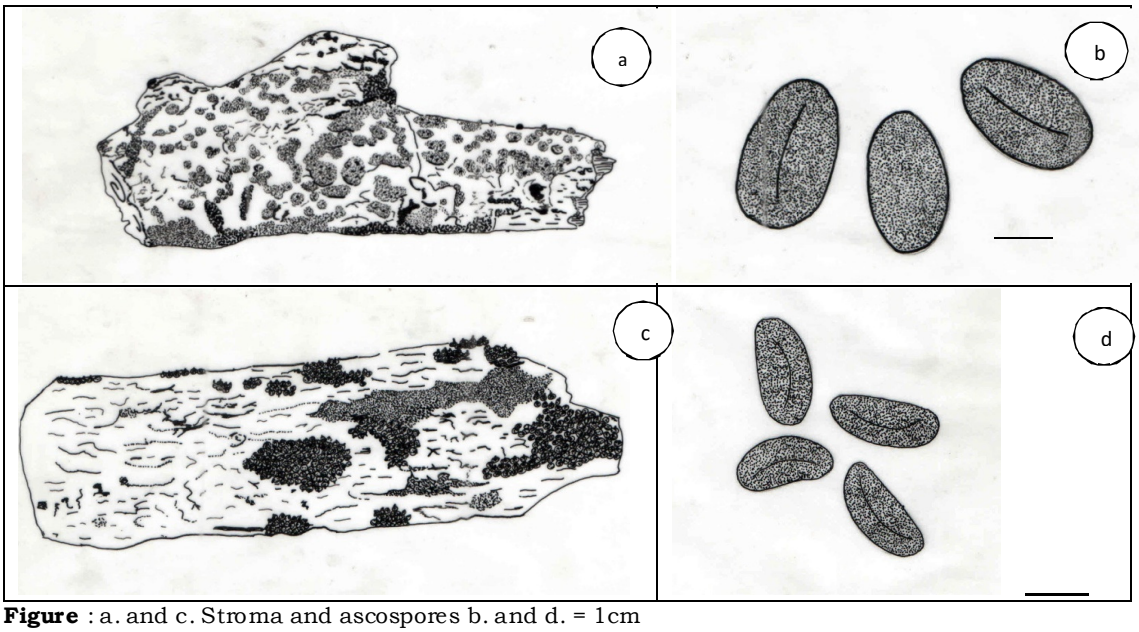

Figure : a. and c. Stroma and ascospores b. and d. = 1cm

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