

Xylaria badia - a new distribution record of the deadwood fungus from Karnataka

Xylaria badia was first described by Patouillard (1891) which belongs to the family Xylariaceae (Xylariales). Members of Xylariaceae are one of the important components of terrestrial ecosystems. They play a vital role as decomposers, plant pathogens, and endophytes. Species of *Xylaria* has been recorded in most of the countries and hence considered as largest genus in the family and abundant in tropics and subtropics. According to Index Fungorum so far about 670 records of *Xylaria* have been reported from all over the world (Hyde et al. 2020).

They are characterized by erect stroma, varying in shape from cylindrical to clavate, or irregularly shaped with fertile parts, cylindrical asci with eight ascospores and a J+ apical ring in Melzer's reagent (Okane et al. 2008; Karun & Sridhar 2015; Daranagama et al. 2016).

During the exploration of Xylariaceae, one of the species was encountered

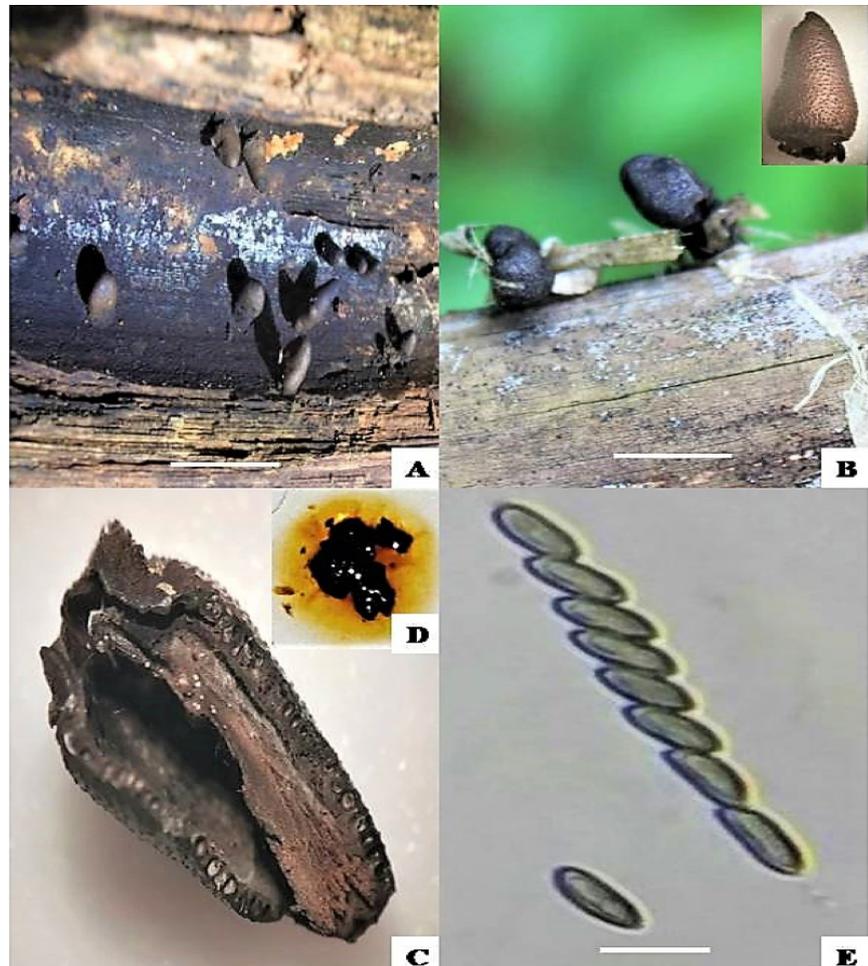


Image 1. A—*Xylaria badia* habitat | B—Stromata enlarged | C—V.S. of stromata | D—KOH pigmentation | E—ascospores. Scale bars: A–B= 0.5–1 cm, E= 8.5–9.5 μ m.

on bamboo culms. Based on morphological and microscopic characters it was identified as *Xylaria badia* Pat. The previous reports of *Xylaria badia* Pat., are from southeastern Asia (Vander 1995; Fournier et al. 2019). Photographs of the fungus are provided. It is first report for Karnataka.

Regular exploration of Xylariaceae was carried out in forest regions of Tharikere taluk, Chikkamagaluru district of Karnataka, India during the month of June to September 2019–20. Microscopic features and measurements were made from slide preparations mounted in water and Melzer's

iodine reagent. The photographs of asci, ascical apical rings, and ascospores were taken by using an Olympus CH20i microscope.

The photographs of stromatal surface were taken with a Magnus microscope and Sony cyber-shot. Examined specimens are

deposited in Department of Botany, Kuvempu University, Shankaraghatta, Shivamogga, Karnataka, India.



Taxonomic description

Xylaria badia Pat., Journal de Botanique, 5(19): 319 (1891)

Mycobank number: 186925 (Image 1 & 2)

Description: Stromata cylindrical to clavate, short, simple with rounded fertile apices, sub sessile to shortly stipitate 0.5–1 cm total height × 0.2–0.6 cm diam. Surface silvery brown and became to grayish-brown with age with KOH- extractable pigment honey-coloured, internally brownish orange. Surface smooth, shining. Perithecia subglobose, 0.2–0.3 mm diam. Ostioles finely papillate, black. Asci cylindrical, shortly stipitate, apical apparatus discoid, blueing in Melzer's reagent. Ascospores 8.5–9.5 μm × 3.5–4.3 μm, light brown, ellipsoid, in equilateral to equilateral with narrowly to broadly rounded ends, unicellular, germ slit less than full spore length epispore smooth.

Habit: Saprobic in nature.

Habitat: Grown on Bamboo culms.

Specimen examined: KUABHS-11 & KUABHS-17, 10.x.2019 and 1.vii.2020, India, Karnataka, Chikkamagaluru, Tharikere

(13.5489°N & 75.8228°E), coll. S. Himani & M. Krishnappa, Gen bank accession number MW965576.

Comments: *Xylaria badia* differs from other bamboo inhabiting *Xylaria* species by its smaller size and KOH extractable pigments (Fournier et al. 2019).

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