

Three giant Ascomycetes (Pyrenomycetes) from Maharashtra, India

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Xylaria poitei, *Hypocrea peltata* and *Xylaria gigantea* are recorded for the first time from India.

Key words – *Hypocrea* – Taxonomy – *Xylaria*

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Introduction

During a study of fungi from south-western parts of Maharashtra, India, an ascomycete with a giant ascocarp was collected and identified as *Xylaria poitei*. Two other giant ascomycetes, *Hypocrea peltata* and *Xylaria gigantea*, previously collected from the same study area were scrutinised and revised. All three species are new records for India.

Hypocrea peltata (Jungh.) Berk., Hookers J. Bot. 3: 206, 1851. (Fig. 1, 2e)

≡ *Sphaeria peltata* Jungh., Praemisa in *Florum Crypto. Javae Insulae Fasc. I*, p. 20, 1838 = *Hypocrea gigantea* T. Petch, *Ann. Roy. Bot. Gard. Peradeniya Vol -VII P.II*, p.131, 1920.

Habit – On dead tree trunk, Ajara, Dist.Kolhapur, Maharashtra, India, M.S. Patil, 28 September 1977, WIF No.106.

This species was reported by M.J. Berkeley as a new combination based on *Sphaeria peltata* Jungh. from Java. This species shows wide geographical distribution in Asia, Africa and South America. Petch (1920), Kar & Maitey (1979) and Patil & Patil (1983) recorded it as *Hypocrea gigantea* from Sri Lanka and India.

The present material shows stroma centrally stalked, globose, ovoid or flat cushion shaped, laterally plicate and lower side shortly contracted, separate or aggregated, apex pulvinate and lower side depressed, glabrous, yellow, ostioles not prominently seen, 2.5–12 cm in diameter and 3–4 cm in height, flesh white, margin fibrillose/simple, 1–3 septate, hyaline hair, 6.3–8.25 x 20–60 µm; perithecia arranged in the peripheral zone, monostichous or distichous, ovoid, thin-walled, 150–175 x 275–315 µm; asci narrowly cylindrical, first 8-spored then 16-spored, 3.5 x 65–100 µm; ascospores uniseriate, obliquely arranged, globose part-spores hyaline and finely verrucose, 3.2 x 5 µm in diameter; conidial state absent. The ascostromata in the present specimen is larger than described by others (12 cm in diameter), but the other characters perfectly resemble *H. peltata*.

Xylaria gigantea (Zipp. & Lév.) Fr., *Nov.Symb.*, p.127, 1845. (Fig. 2d)

On soil, Kas, Dist. Satara, M.S., India, C.R. Patil, 14 October 1995, deposited at Mycology Herbarium, Botany Department, Shivaji University, Kolhapur, Maharashtra as

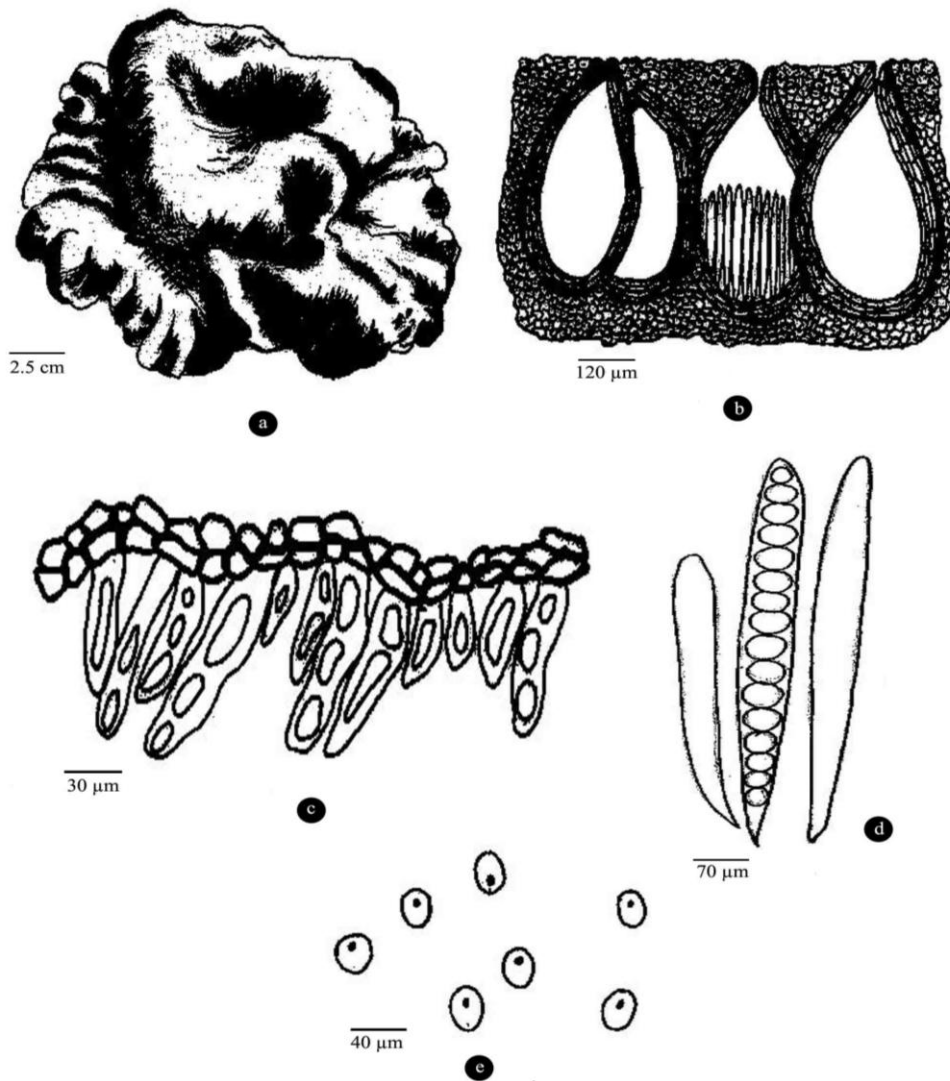


Fig. 1 – **a** *Hypocrea peltata* Habit **b** V.S. of stroma **c** Lower part of stroma with 1- celled guttulate hairs **d** Asci **e** Ascospores

WIF No. 1732.

This species was described from Java and Borneo. The present material has large ascocarps, which are erect, clavate, subcylindrical or fusiform, compressed, 25 x 8 cm, with rough surface, yellowish brown colour and hollow in the centre; perithecia monostichous, 100–200 x 200–350 µm; ascospores 5–9 x 8–14 µm, olivaceous-brown with inconspicuous germ slit. All the characters agree well with *Xylaria gigantea*. The present material was identified by Dr. M.S. Patil and described by Dr. Mahamulkar in his Ph.D. thesis approved by Shivaji University, Kolhapur (2001).

Xylaria poitei (Lév.) Fr., Nova Acta R. Soc. Scient. upsal., Ser. 3, 1: 125, 1851. (Fig. 2a–c)

On dead decaying wood, Patgaon, Dist. Kolhapur, M.S., India, B.T. Dangat, 19 August 2011, National Fungal Culture Collection of India (NFCCI), Ajrekar Mycological Herbarium ARI, Pune, AMH No. 9455.

The present collection has cylindrical to clavate stromata, 4–6 x 16–25 cm, with several arising from a common source, unbranched, with rounded apices, stromatal surface smooth, blackish, with black ostioles, interior white, becoming hollow; perithecia monostichous; asci 8-spored, long-stipitate; ascospores one-

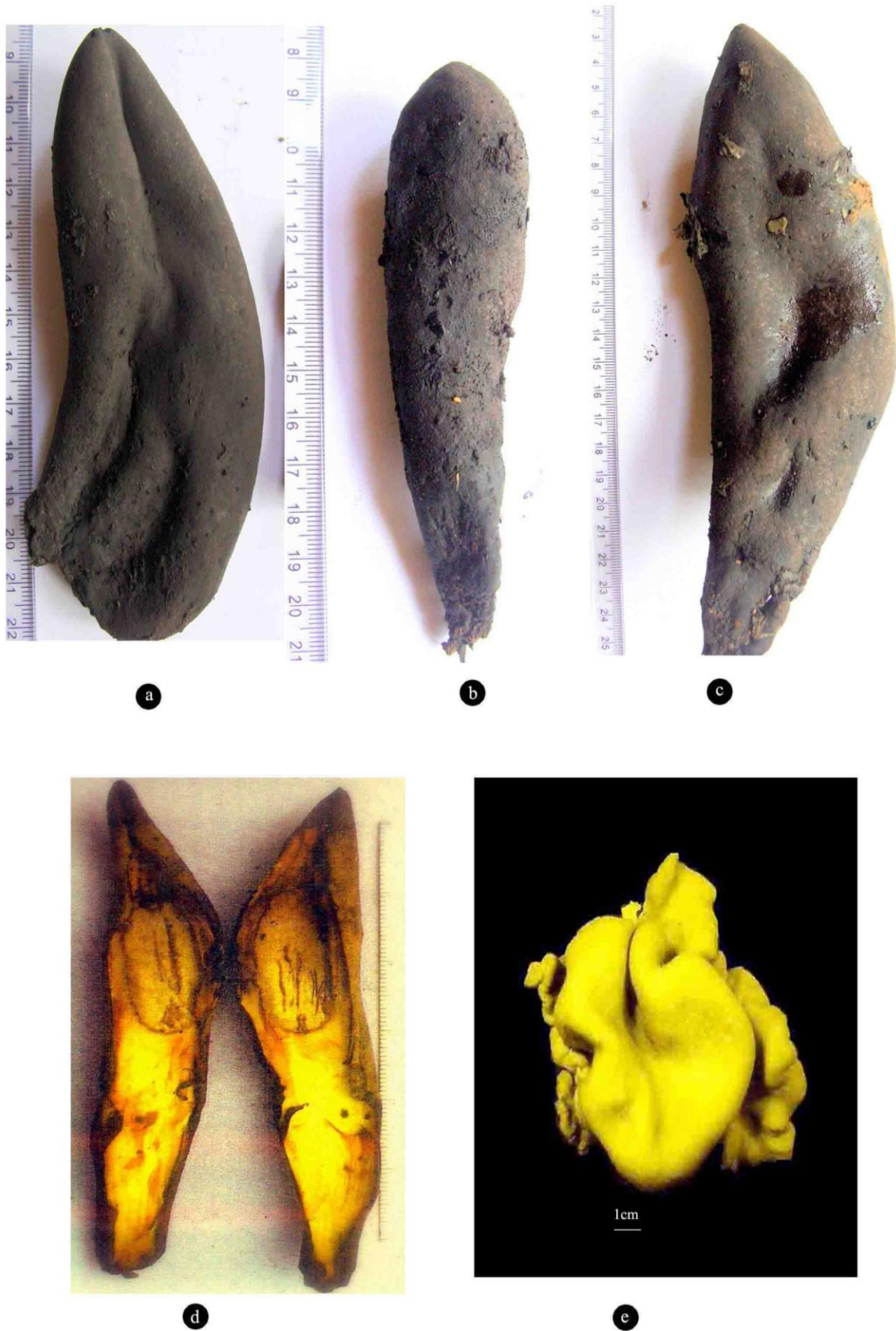


Fig. 2 – a,b,c *Xylaria poitei* Ascocarp d *Xylaria gigantea* Ascocarp e *Hypocrea peltata* Ascocarp.

celled, ellipsoid, 15.6–18.2 x 5.2–7.8µm, dark brown, biguttulate with indistinct germ slit. The stromata are larger than those reported from the U.S.A. (Rogerson 1984), but all other characters coincide with *X. poitei*.

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