

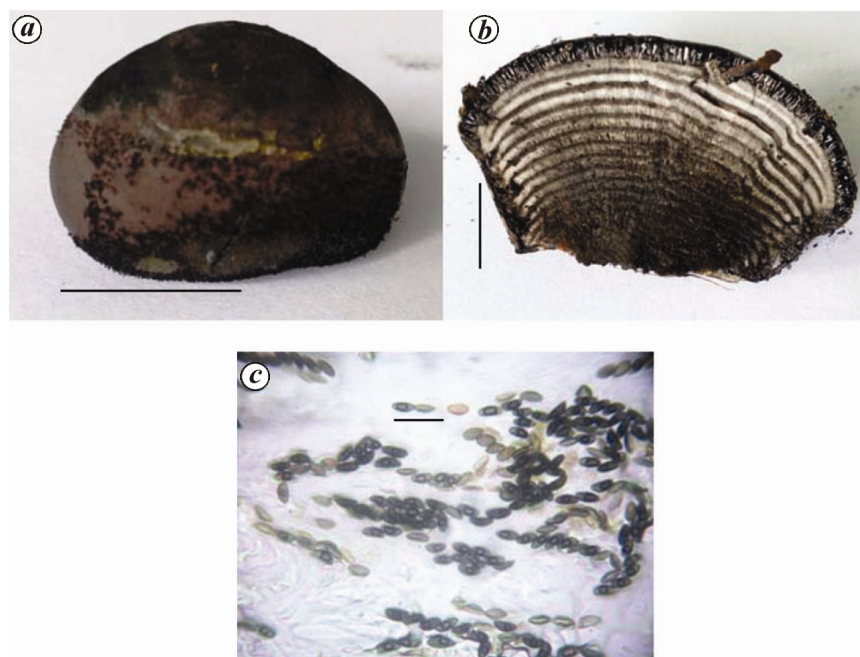
***Daldinia concentrica* – new distribution record from North East India**

*Daldinia concentrica* (Bolton) Ces. & De Not. (Mycobank No. MB#146158) is an inedible saprobic macro fungi commonly known as King Alfred's cake, cramp balls and coal fungus. It grows on dead and decaying wood. The fungus belongs to the family Xylariaceae, order Xylariales, class Sordariomycetes and phylum Ascomycota. It was found firmly attached on a fallen branch of *Mallotus ferrugineus* (Roxb.) Mull. Arg. (Assamese – *Morolia*) – a small evergreen tree in the Rain Forest Research Institute campus, Jorhat, Assam (lat. 26°46'55.37"N, long. 94°17'46.12"E, altitude 95.5 m above mean sea level) in December 2015. *M. ferrugineus* has been reported for the first time as a host plant/substratum of *D. concentrica*. According to mycobank records there are 88 species, 10 varieties and 7 forms of the genus *Daldinia*, which have been reported from different parts of the world. This fungus has been reported from Mexico, Europe, India, New Zealand, Taiwan, Guatemala and the United States of America. *D. concen-*

*trica* has been reported from many parts of India including Western Himalaya, Western Ghats<sup>1</sup>, Eastern Ghats<sup>2</sup> and central India<sup>3,4</sup>, but not yet from North-East India. Many macrofungal species have been reported by Gogoi and Parkash<sup>5-8</sup> from North-East India, but this species had never been reported from this part of India and on this particular host. The etymology of *D. concentrica* was for the internal concentric zones of its stromata.

Fruit body or stromata (Figure 1 a) was found to be globose or oval shaped, 2.5–4 cm long, 1.5–2 cm wide, 2 cm high, sessile and directly attached to the substratum – fallen branches of *M. ferrugineus*. It is shiny reddish-brown when young and eventually turns black, covered with mass of ascospores. The flesh of the fungus was silvery-black inside and arranged in concentric layers (Figure 1 b). Each layer represents a season of reproduction. Perithecia are small, crowded, in a single layer beneath the thin crust (Figure 1 b). The asci were

found cylindrical and arranged inside the flask-shaped perithecium. When each ascus becomes engorged with fluid, it extends outside the perithecium and releases spores. Asci are cylindrical, 100–130 × 7–8 μm, eight-spored, uniseriate. Ascospores are 12–15 × 6–7 μm in size, broadly elliptical to bean shaped and dark brown in colour (Figure 1 c). The important diagnostic characteristics of this fungus are the concentric lines in the stromata (Figure 1 b). The fungus is a useful form of tinder for fire-lighting.



**Figure 1.** *Daldinia concentrica*. **a**, Fruit body or stromata, scale bar = 1.5 cm; **b**, L.S. of stromata, scale bar = 1 cm; **c**, Ascospores, scale bar = 24 μm.

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