



PHELLORINIA: A UNDER EXPLOITED MUSHROOM

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ABSTRACT: *Phellorinia herculeana* locally known as marusthali 'khumbi' or 'khumbo' is a wild, edible, gastroid mushroom distributed in desert areas of world. This mushroom of Thar Desert of India is known to its delicacy and deliciousness, as well as its medicinal value. It is hunted and eaten by the rural folk, since centuries for its nutritional worth. The successful domestication protocol of the mushroom is not developed. The present review reports taxonomy, morphology, nutritive value, medicinal value, cultivation technique and future thrust of this important mushroom.

Keywords: Cultivation, Economic importance, Morphology, *Phellorinia*

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Phellorinia herculeana (Pers.) Kreisel is a wild, edible, gastroid mushroom distributed in arid and semi-arid regions. The fruiting body of this gastroid mushroom appears individually or in groups during rainy season. It usually grows on sandy and sandy loam soil of the sand dunes under high temperatures and low humidity conditions and is highly adapted to xeric climate. The occurrence of *P. herculeana* was first reported by Miles Joseph Berkeley in 1843 and designated *Phellorinia* as genus with holotype *P. inquinans* (Berk.). Subsequently, its occurrence was reported from different parts of the world viz., Mahove desert, North of Colorado (Peck 1890), South-West America (Saccardo 1882-1912), North America (Bessey 1952), West Pakistan (Ahmad 1952), Kuwait (Moustafa 1978), Baluchistan (Khan *et al.* 1980), South Africa (Coetzee *et al.* 1997). Yemen (Kreisel and Fatimi 2004), Australia (Williams and Woinarski 1997; Fuhrer, 2005), Sind, Pakistan (Sultana *et al.* 2007), Cholistan desert of the Punjab province, Pakistan (Yousaf *et al.* 2012)

In India, it was first reported by Ahmad (1939) from Punjab plains and consequently it was reported from different areas of India (Munjal and Bahl, 1973; Kapoor 1989; Sharma *et al.* 1992; Singh 1995; Sharma and

Doshi 1996a). Its emergence was recorded on barren sand dunes after one or two good spell of monsoon rains (Singh 1977; Sharma *et al.* 1992; Singh, 1994; Sharma and Doshi 1996a). Bohra *et al.* (2001) studied ecological and geographical distribution of *P. inquinans* in Gujarat and Rajasthan and deliberated its popularity and edibility among ethnic populace of Thar Desert. Gehlot and Singh (2015a) and Sharma *et al.* (2015) reported its occurrence from Jodhpur, Jaisalmer and Barmer district of Rajasthan during monsoon season.

P. herculeana locally known as *Marusthali khumbi* is relished by the local people since centuries and people of Thar Desert of India knows its deliciousness and medicinal values. The nutritional values of this mushroom have great importance for diet of rural folks of arid and semi-arid regions. The villagers collected the wild mushroom for their consumption, medicine purpose and business. The availability in short period of rainy season; it is sold out in city market with high price Rs. 400-500/- per kilogram.

The present review discusses taxonomy, morphology, nutritive value, medicinal value, cultivation technique and future thrust of this important mushroom.