



## HEADLESS STINKHORN FUNGI (*MUTINUS* SPP.) WITH SPECIAL REFERENCE TO INDIAN SPECIES

R.K. VERMA<sup>1</sup>, POONAM VERMA<sup>1</sup> AND YOGESHWAR MISHRA<sup>2</sup>

<sup>1</sup>Forest Pathology Division, <sup>2</sup>Genetics and Plant Propagation Division  
Tropical Forest Research Institute,  
PO - RFRC, Jabalpur-482021, Madhya Pradesh, India

**ABSTRACT:** An account of worldwide distribution of headless stinkhorn fungi (*Mutinus* spp.) is given. Two species, namely, *M. bambusinus*, *M. caninus* are reported from India. *M. bambusinus* is for the first time reported from central India, earlier this species was reported from Assam.

**Keywords:** Mushroom, *Mutinus bambusinus*, new report

**Citation:** Verma RK, Verma Poonam, Mishra Y (2016) Headless stinkhorn fungi (*Mutinus* spp.) with special reference to Indian species. Indian J Trop Biodiv 24(1): 75-80

Received on : 20 Jan. 2015  
Accepted on : 10 Mar. 2016  
Published on : 30 Jun. 2016

The stinkhorn mushrooms belong to family, Phallaceae of Agaricomycetes and distributed all over the world. Unlike other mushrooms, the stinkhorn distributes its spores by applying an odorous, spore-thick slime to its tip, which flies and other insects are attracted to. The flies then carry the spores to other places. The spore produced in stinkhorn fungi in a head common example of these fungi is *Phallus*. The stinkhorns provide attractive fungal specimens arrayed in reds, pinks, whites, yellows, and oranges. The stinkhorn lacking head are termed as headless stinkhorn and the common representative is *Mutinus elegans*. This mushroom reproduces by getting its spores to piggyback away on insects. It evolved a failsafe method of attracting flies, bursting from the ground with a tip covered in a brown or olive brown slime that gives off an odor described as "like spoiled meat. These mushrooms are growing in shady, damp mulch and compost piles in parks, gardens, and backyards. *M. bambusinus* is commonly known as the dog stinkhorn, the headless stinkhorn. The fruit body begins its development in an "egg" form, resembling somewhat a puffball partially submerged in the ground. As the fruit body matures, the egg ruptures and the spongy spore-bearing stalk emerges. The stalk is hollow, porous, and pinkish white in colour; its shape is cylindrical below, but it gradually tapers to a narrow apex with a small opening at the tip. The stalk is generally straight, sometimes

slightly curved. Fruit bodies are attached to the substrate by whitish hyphal cord called "rhizomorph" that resembles plant roots. The upper half of the stalk is red in colour, covered with a foul-smelling slimy green spore mass called gleba. Edibility of the mushroom is unknown but although there are reports of the immature eggs of *Mutinus* species are being consumed (Arora, 1986). Till date, two species of *Mutinus* recently have been reported from India. There was no report of *M. bambusinus* from central India; therefore, this is a new report from central India.

### MATERIALS AND METHODS

#### Study site and sample collection

The headless stinkhorn was collected from the shade house of Genetics and Plant Propagation Division of Tropical Forest Research Institute (TFRI), Jabalpur, Madhya Pradesh. The institute is situated between 23°5'37" to 23°6'10"N latitude and 79°59'49" to 79°59'42"E longitude. The average elevation of the site is 411 meter (1348 ft) from sea level and is situated in the Mahakoshal region of central India. The temperature of Jabalpur varies from 9°C to 43°C. The average annual rainfall over the area is 1358mm. Rhizomes of bamboos were collected from Kosla, Angul, Odisha (N21°01'52.0" E84°55'13.2") for vegetative propagation and planted in earthen pots in sand, soil and farm yard manure, 1:2:1 ratio. Some rhizomes were not sprouted and found dead