

AGARICALES OF WEST BENGAL: V

By

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The present paper gives an account of some pileate fungi of Bankura district and its adjoining areas of West Bengal. A brief annotations of five species are mentioned here, among which *Pleurotus gemmellari* (Inz.) Sacc. is first reported from Indian and *Pleurotus eouk* (Berk.) Sacc., *Laccaria lateritia* Malenc. are reported from West Bengal for the first time.

INTRODUCTION

It is intened to present as far as possible an account of the pileate mushrooms of west Bengal. Though in foreign countries several scientists have done extensive work on the mushrooms of different localities yet uptil now there is no such detail work on Indian pileate fungi.

Some fragmentary reports about Indian mushrooms are now available from the works of Saccardo (1887, 1888), Murril (1924), Kritikar and Basu (1918), Bose (1918, 1920, 1923, 1940), Banerjee (1947), Chopra & Chopra (1955), Gosh & Pathak (1965), Trivedi (1972), Kaul & Kachroo (1974). Ray and Samajpati (1976) reported some species of mushroom from Bankura district. W. B. In the present report five species of mushroom have been described.

MATERIALS AND METHODS

This study has been mainly confined to specimens collected from the western part of West Bengal. Dry specimens have been softened by soaking in 95% EtOH followed by treatment in KOH solution for microscopical observation.

Anatomical peculiarities of pileus, stipe etc. are examined from microtome slides (following xylol : alcohol grade) preparation. Spore prints of the fungi have been collected from fresh specimens and their amyloid or non-amyloid nature were determined after using Melzer's reagent. (KI-1.5 gms., Iodine 0.5 gms., chloral hydrate 22.2 gms., distilled water 20 c.c.)

DESCRIPTIONS

Lentinus connatus Berk., Hooker.

Kavaca, 3 : 11-20 (1975)

L. Javanicus Lev., *Ann. Sci., Nat. Bot. Ser.*, III, 5 : 118 (1846)

L. revelatus Berk. *Hooker's Lond. Journ. Bot.*, 6 : 492 (1847)

L. Velatus Berk. & Br. *Journ. Linn. Soc. Bot.*, 14 : 42 (1875)

L. infundibuliformis Berk. & Br. *Journ. Linn. Soc. Bot.*, 14 : 42 (1875)

Panus ochraceous Mass., *Bull. Misc. inf. Kew*, 1906 : 92 (1906)

Sporophore Lignicolous, caespitose, Infundibuliform. 60-100 m m. diam, white to cream in colour, involute, Fleshy, brittle at fresh.

Lamellae decurrent, concolorous with the pileus, 2-2.5 m m. wide.

Stipe centric, glabrous, 20-45 m.m. x 1.5-3 m.m, concolorous with the pileus. Both volva & annulus absent. *Context*-1.5-2.5 m. m. thick, white, fleshy at fresh condition. Hyphal system dimitic; composed of thin walled generative hyphae & thick walled skeletal hyphae, clamp connection present. *Basidiospore* variable in size, non-amyloid. 5.5 μ -15.5 μ in length.

Cystidia-absent.

Basidium

Pleurotus gemmellarii (Inzeng.) Sacc.

Kew Bulletin 31 (3) 501-510 (1976)

Agaricus gemmellarii In-zeng.

Sporophore-caespitose, spathulate to flabelliform, 50-120 m. m. diam., depressed at the centre, deeply incised in old specimens. Buff to brownish in colour, glabrous, coriaceous, not hygrophanous sulcate margin.

Lamellae-decurrent, pliable, coriaceous, cream to brownish, with lamellulae.

Stipe-Almost nil, ecentric, 5 m. m.-10 m. m., concolorous with the pileus; glabrous, solid, gradually tapering towards the base, without any veil.

Context-5-10 m. m. thick at the base, concolorous with the pileus, consisting of loosely interwoven hyphae, thin walled.

Hymenophoral trama-Irregular, with loosely interwoven hyphae.

Basidiospore-Hyaline, smooth,

$7.40\mu-11.10\mu$ (9.25) $\times$ $1.85\mu-3.70\mu$ (2.77) Q. 3. 3.

Basidium-clavate, tetrastigmatic.

$46.25\mu-51.80\mu$ (48.10) $\times$ $5.55\mu-7.40\mu$ (6.47) Q. 7. 4.

Pleurocystidia-absent, cheilocystidia-narrow, clavate to sub-cylindric, hyaline, thin walled.

$31.45\mu-37.00\mu$ (34.4) $\times$ $3.70\mu-5.55\mu$ (5.18) Q. 6. 6.

Pleurotus ostreatus (Jacq. Ex Fr.) Kummer

Kew Bulletin 31 (3) 501-510 (1976)

Agaricus salignus Pers Ex Fr., *Syst. Mycol.*, 1: 183 (1821)

Sporophore-Lignicolous, caespitose, Flabelliform, 40-70 m. m. diam. light ochraceous buff, Glabrous, coriaceous. pliable at fresh and also with age; margin deeply incised with age, involute.

Lamellae-Decurrent, white, pliable, crowded, *Stipe*-e-centric, gradually tapering towards the base, 15-20 m. m. in length, concolorous with the pileus, glabrous, without volva and annulus. *Context*-white, consisting of loosely arranged interwoven hyphae, with clamp connections.

Basidio Spore-ochraceous buff colour in mass, non-amyloid, Elliptic, hyaline, glabrous, $5.55\mu-7.40\mu \times 3.70\mu$, Q. 1. 9.

Basidium-clavate, tetrasterigmatic, $25.90\mu-29-60\mu \times 3.70\mu-5.55\mu$ Q. 5. 8

Hymenophoral trama-Homoiomorous, sub-regular to irregular. Cheilocystidia-present.

Pleurotus eous (Berk) Sacc.,

Kew Bulletin 31 (3) 501-510 (1976)

Agaricus eous Berk. in *Hook. Journ. Bot. & Kew Gard. Misc.* 2: 83 (1850)

Sporophore-Lignicolous, caespitose, Imbricate, at first spatulate and flabelliform with age, glabrous, coriaceous at first and also with age, incurved, not striate, pliable, 20-30 m. m. diam., *Lamellae*-Decurrent, crowded, *Lamellulae* of three different lengths, concolorous with the pileus, thin, *Stipe*-Ecentric, almost sessile 5-10 m. m. in length. Context-1-2.5 m. m. thick, white, soft, fleshy, consisting of interwoven hyphae, with clamp connections. *Basidio Spore*-White colour in mass, non-amyloid, Elliptic, hyaline. $3.70\mu-5.55\mu \times 1.85\mu$ Q. 2. 8.

Basidium-clavate, tetrasterigmatic, $16.5\mu-18.50\mu \times 5.55\mu-7.40\mu$ Q. 2. 8.

Hymenophoral trama-Homoiomorous, sub-regular to irregular, composed of thin walled interwoven hyphae. *Pleurocystidia*-absent.

Laccaria lateritia Malencon, *Kew Bulletin*, 23 : (3) 347-409 (1969)

Naucoria goossensiae Beeli. *Bull. Soc. Bot. Belg.* 61 : 88 (1928)

Laccaria laccata (Scop. Ex. Fr.) Cooke. forma bisporea Heinem. in *Bull. Jard. Bot. Brux.* 34 : 310 (1964)

Sporophore-umbilicate at maturity, 15-20 m. m. diam.; clay buff to cinnamon-rufous colour, much paler on drying, striate. *Lamellae*-Adnate, distinct, pliable, 3-4 m. m. width, with lamellulae.

Stipe-20-50 m. m. x 2-3 m. m., almost equal, centric, cylindric, glabrous; concolorous with the pileus. *Context*-Thin, 0.25-0.5 m. m., consisting of closely interwoven hyphae. *Basidio Spore*-white colour in mass, Globose, echinulate, guttulate, non-amyloid. 5.55μ - 7.40μ diam. Q. 1.

Basidium-clavate, 25.90μ - $29-60\mu$ (27.38) x 5.55μ - 7.40μ (6.78) Q. 4. 03.

Cystidia-None, Hymenophoral trama-regular, sub-hymenium, sub-cellular

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