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Phlebiopsis mussooriensis (*Agaricomycetes*), a new corticioid species from India

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Abstract – A new corticioid species, *Phlebiopsis mussooriensis*, is described from Mussoorie in Uttarakhand.

Key words – Company Garden, *Cedrus deodara*

While conducting the fungal foray in the Company Garden in Mussoorie of Uttarakhand, India, Dhingra and Navneet made a collection from a decaying log of *Cedrus deodara*. On the basis of macroscopic and microscopic characters it was compared with species of *Phlebiopsis* and *Phanerochaete* (Eriksson et al. 1978 1981, Burdsall 1985, Dhingra 1987, Parmasto et al. 2009). As it could not be assigned to any of the known taxa in these genera, it is here described as a new species. With the addition of the new species to the four earlier reported species, the total number from India has become five, a key to which is also provided.

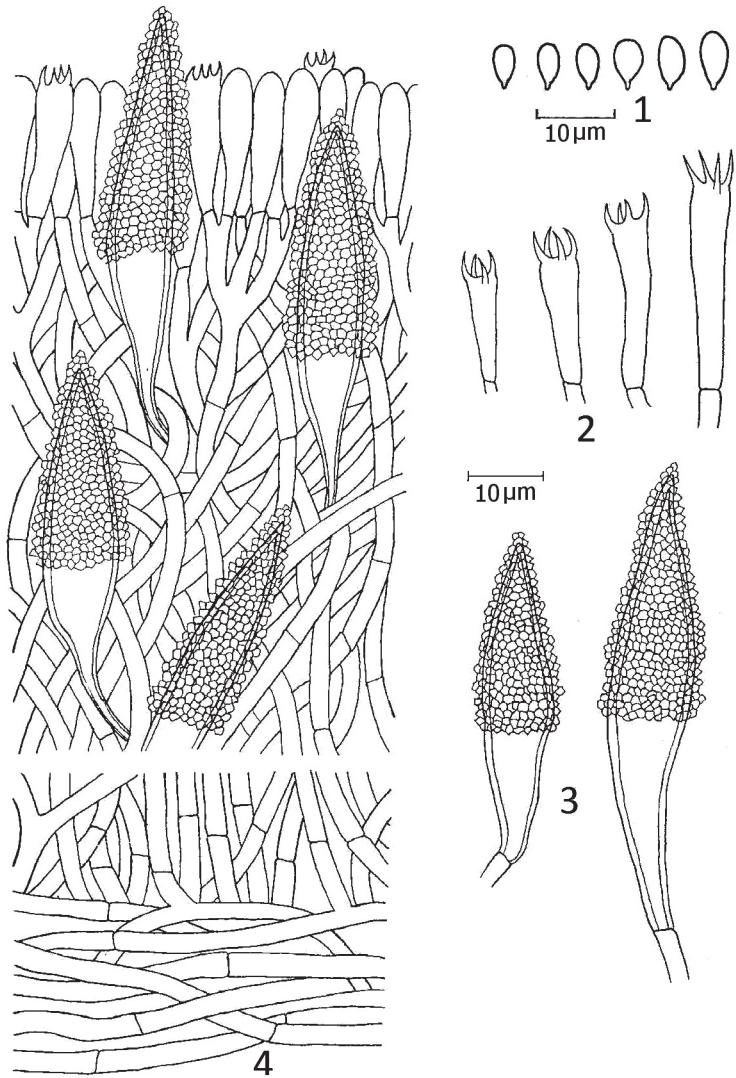
Phlebiopsis mussooriensis Priyanka, Dhingra & N. Kaur, **sp. nov.** Figs 1–5

MycoBank MB 517441

Basidiocarpum resupinatum, adnatum, effusum, ad 560 µm crassum; hymenium tuberculatum; systema hyphale monomiticum; hyphae ad 3.6 µm latae, fibulae destitutae; cystidia 40.0–62.0 × 7.2–10.9 µm, subfusiformia vel fusiformia, encrustata; basidia 13.0–26.7 × 3.3–5.0 µm, clavata, 4-sterigmata; basidiosporae 5.0–7.1 × 2.5–3.8 µm, ellipsoidae, tenuitunicatae, inamyloidae, acyanophilae.

Type: India, Uttarakhand: Mussoorie, Company Garden, on a decaying log of *Cedrus deodara* (Roxb.) G. Don (*Pinaceae*), Navneet 3405 (PUN, **holotype**), September 26, 2004.

Etymology: The epithet refers to 'queen of hills,' Mussoorie, in Uttarakhand where the holotype was collected.



Figs 1–4. *Phlebiopsis mussooriensis*: microscopic structures
1. basidiospores; 2. basidia; 3. cystidia; 4. vertical section through basidiocarp.

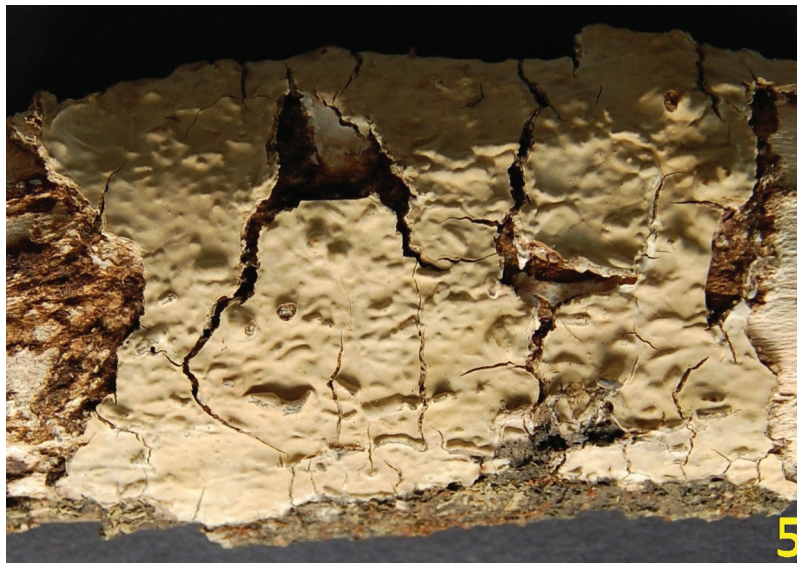


Fig. 5. *Phlebiopsis mussooriensis*: basidiocarp showing hymenial surface.

Basidiocarp resupinate, adnate, effused, up to 560 µm thick in section; hymenial surface smooth to somewhat tuberculate, grayish yellow, not changing to purplish on putting a drop of 3% KOH solution, cracks appearing on drying; margins thinning out to abrupt. Hyphal system monomitic; generative hyphae up to 3.6 µm wide, branched, septate, without clamps; basal zone up to 290 µm thick, composed of compactly packed hyphae running parallel to the substratum; subhymenium of irregularly branched, compactly packed vertical hyphae; hymenium thickening with evenly distributed cystidia. Cystidia 40.0–62.0 × 7.2–10.9 µm, numerous, subfusiform to fusiform, thin- to somewhat thick-walled, especially at the base, naked when young to heavily encrusted in the upper ⅔ portion when mature, immersed or projecting up to 45 µm from the hymenium. Basidia 13.0–26.7 × 3.3–5.0 µm, narrowly clavate, apically widened, thin-walled, 4-sterigmate, without basal clamp; sterigmata up to 5.0 µm long. Basidiospores 5.0–7.1 × 2.5–3.8 µm, ellipsoid, smooth, thin-walled, inamyloid, acyanophilous.

Remarks—*Phlebiopsis mussooriensis* resembles members of the genus *Phanerochaete* in producing a thickened hymenium with evenly distributed encrusted cystidia, but the newly described species differs from the same by a distinctly firm subiculum composed of narrow, thin-walled hyphae (up to 3.5 µm wide). On the other hand, it is quite similar to *Phlebiopsis himalayensis*

Dhingra in producing a smooth to somewhat tuberculate basidiocarp and thick-walled encrusted cystidia, but the basidiospores of the latter species are considerably shorter (3.5–4.75 × 2.5–3.0 µm) than in the new species. In addition, basidiocarp of *P. himalayensis* turns purplish on putting a drop of 3% KOH solution, a reaction that is not observed for *P. mussooriensis*. The new combination of features supports an independent species.

Consolidated key to the Indian species of *Phlebiopsis:*

1. Cystidia not massive (generally up to 10 µm wide) 2
1. Cystidia massive (more than 10 µm wide) 3
2. Hymenial surface turns purplish on putting a drop of 3% KOH solution, basidiospores 3.5–4.75 × 2.5–3.0 µm ..... *P. himalayensis*
2. Hymenial surface not changing color in 3% KOH solution, basidiospores 5.0–7.1 × 2.5–3.8 µm ..... *P. mussooriensis*
3. Basidiospores broadly ellipsoid, 5–6 × 3.5–4.5 µm ..... *P. darjeelingensis*
3. Basidiospores oblong-narrowly ellipsoid-sub cylindrical 4
4. Subiculum well developed ..... *P. gigantea*
4. Subiculum scanty or lacking ..... *P. roumeguerei*

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