Crinipellis odorata
**Crinipellis odorata** K.P.D. Latha & Manim., *sp. nov.*

**Etymology.** The name refers to the odoriferous basidiomata of this species.

**Classification —** Marasmiaceae, Agaricales, Agaricomycetes.

*Basidiomata* small to medium-sized, marasmoid, often in dense tufts. *Pileus* 6–31 mm diam, truncate conical or conico-convex with a small central depression when very young, becoming campanulate to broadly campanulate, still with a small central depression; surface dark brown (8F4, 8F5/OAC635) or reddish brown (8F7/OAC636) at the centre and on the squamules and brownish orange (6C5/OAC652) or light brown (6D5/OAC659) elsewhere, not hygrophanous, not striate, appressed- to slightly recurved-squamulose all over; margin initially incurved, becoming decurved to almost reflexed with age, finely appendiculate, crenate or somewhat wavy. *Lamellae* adnexed, crowded, yellowish white (4A2/OAC815) when very young, becoming greyish yellow (4B4/OAC806), up to 2 mm wide, with lamellae of 3 lengths; edge crenate, concolorous with the sides. *Stipe* 39–120 × 2–4 mm, central, terete, or slightly compressed, tapering towards the base, hollow, slightly flexuous towards the base, insitious; surface concolorous with the pileus, appressed- to slightly recurved- squamulose all over, densely so towards the apex; base deeply rooted. *Rhizomorphs* absent. *Context* up to 2 mm thick, yellowish brown. *Odour* strong, unpleasant. * Taste* not distinctive. *Basidiospores* 5–8 × 5–7 (6.5 ± 0.77 × 5.9 ± 0.61) µm, Q = 0.86–1.3, Qm = 1.11, subglobose to almost globose, smooth, thin-walled, inamyloid. *Basidioles* 28–48 × 6–12 µm, abundant, fusoid or clavate, thin-walled, hyaline. *Lamella edge sterile with copious chellocystidia*. *Chellocystidia* 22–65 × 7–19 µm, versiform or oblong, clavate, cylindrical, cyndrical with a median constriction, flexuous, nodulose-diverticulate, sometimes capitate, thin- to slightly thick-walled, hyaline or pale yellow. *Pleurocystidia* absent. *Lamellar trama* subregular; *hyphae* 3–12 µm wide, thin-walled, hyaline or pale yellow, inamyloid. *Pileus trama* subregular to interwoven; *hyphae* 6–15 µm wide, thick-walled (up to 2 µm thick), with a pale yellow wall pigment, dextrinoid. *Pileipellis* composed of tufts of fasciculate hairs arising from a hypotrichium; hypotrichial *hyphae* 8–18 µm wide, thick-walled (up to 1.5 µm thick), with pale yellow wall and dense, spiral encrusting pigments; pileal hairs 500–1200 × 5–7.5 µm or more, unbranched, cylindrical or sinus-cylindrical with an obtuse apex, thick-walled (up to 2 µm thick), with a yellowish brown wall pigment, dextrinoid, yellowish brown in KOH. *Stipitipellis* composed of clusters of hairs arising from a hypotrichium with flaring-out cystidioid terminal cells; hypotrichial *hyphae* 3–7 µm wide, thick-walled (up to 1 µm thick), with pale yellow wall and minutely, encrusting pigments; stipitipellis hairs 47.5–452.5 × 7.5–12.5 µm, sinusous-cylindrical, thick-walled (up to 3 µm thick), with a pale brown or yellowish brown wall pigment, dextrinoid, pale yellowish brown in KOH; terminal cells cystidioid 32–95 × 10–16 µm, clavate, cylindrical-clavate or irregular in outline, dextrinoid, thick-walled (up to 2 µm thick), with a pale yellowish brown wall pigment. *Caulocystidia* absent. *Clamp-connections* observed on all hyphae except at the base of basidia.

**Habit, Habitat & Distribution —** In dense caespitose clusters or in small groups, attached to the bark at the base of a living Mytragyna parviflora tree as well as deeply rooted in the nearby soil. Known only from the type locality in Kerala State, India.


Notes — Characters such as a brown pileus not reacting with KOH, a long, central stipe, long, thick-walled, dextrinoid hairs on both the pileipellis and the stipitipellis and subglobose basidiospores indicate that the present species belongs to *Crinipellis* sect. *Crinipellis* subsect. *Macrospheariae* (Singer 1976, 1986). The key to the species of *Crinipellis* by Singer (1953) leads *C. odorata* into *C. macrosphearia*, a Brazilian species, as both species have somewhat similar pileus surfaces, adnexed lamellae, subglobose basidiospores, versiform chellocystidia and association with living trees. However, *C. macrosphearia* has smaller basidiomata with a straw- coloured pileus and stipe, distant lamellae, larger basidiospores (12.5–14 × 9.5–11.5 µm), a heterogeneous lamella edge and an indistinct odour. *Crinipellis podocari* is a species originally described from Argentina (Singer 1976) and subsequently from Mexico (Bandala et al. 2012) and belonging to sect. *Crinipellis* of subsect. *Stipitarinae*. *Stipitarinae*, seems to be somewhat close to *C. odorata* in having basidiomata of almost similar size and shape. However, *C. podocari* differs in all other macro- and microscopic characters. Comparison of the ITS sequence (CAL 1240: 754 bp) generated from *C. odorata* with the nucleotide sequences of taxa available in GenBank suggest that *C. odorata* has a distinct ITS sequence. In a megablast search of the GenBank database using ITS sequence of the species, the closest hit was *C. roccosa* (GenBank KJ698642; Identities = 685/762 (90 %), Gaps = 32/762 (4 %)) followed by *C. zonata* (GenBank FJ167659; Identities = 662/741 (89 %), Gaps = 35/741 (4 %)). *Crinipellis roccosa*, a species recently described from China (Xia et al. 2015), shares a few features such as a reddish brown squamulose pileus, somewhat similarly-coloured lamellae, similar-sized basidiospores (5.5–8 × 4–4.5–5), somewhat similar-sized chellocystidia, the absence of pleurocystidia and a similar pileipellis structure with *C. odorata*. *Crinipellis roccosa* is distinguished, however, by its smaller basidiomata, free lamellae with a denticulate margin, a differently-coloured, equal, tomentose-pilose stipe, ellipsoid to broadly ellipsoid or somewhat amygdaliform basidiospores, scattered chellocystidia, the hairs of both the pileus and stipe exhibit greenish yellow in KOH and a non-distinctive odour. *Crinipellis zonata*, a species reported from North America (Redhead 1989), Europe (Antonín & Noordeloos 1997, 2010) and the Republic of Korea (Antonín et al. 2009), has similar looking basidiomata with almost similar colour, crowded lamellae, somewhat similar morphology of chellocystidia, lamellae devoid of pleurocystidia, similar pileipellis and stipitipellis structure and clamped hyphae. However, *C. zonata* has smaller basidiomata, a tomentose pileus with an inflexed margin, differently attached, pale cream lamellae, a hairy stipe, much narrower (3–4 µm) and cylindrical-ellipsoid basidiospores, smaller pileipellis hairs and an indistinct odour. (MycoBank supplementary data.)

**Colour illustrations.** India, Kerala State, Wayanad District, Wayanad Wildlife Sanctuary, type locality; basidiomata, basidiospores, chellocystidia, terminal elements of stipitellis. Scale bars = 10 mm (basidiomata), 10 µm (microscopic structures).

© 2016 Naturalis Biodiversity Center & Centraalbureau voor Schimmelcultures