

Mycena mauritiana, a new species of sect. *Roridae*

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Abstract: A new species of sect. *Roridae*, *Mycena mauritiana*, is described from Mauritius Island. A key of sect. *Roridae* is also presented with a table of comparison with *Mycena fuscororida*, *M. irritans*, *M. lamprospora* and *M. yirukensis*, where the differential features of the various species, growing in the Southern Hemisphere, are pointed out. Microscopical drawings and a colour plate of the new species are added.

Zusammenfassung: Eine neue Art aus der Sektion *Roridae*, *Mycena mauritiana*, wird von der Insel Mauritius beschrieben. Neben einem Schlüssel der Sektion *Roridae* wird ein tabellarischer Vergleich mit *Mycena fuscororida*, *M. irritans*, *M. lamprospora* und *M. yirukensis* angestellt, in welchem die Unterscheidungskriterien der einzelnen Arten aus der südlichen Hemisphäre dargelegt werden. Mikrozeichnungen und ein Farbbild der neuen Art werden angefügt.

On the occasion of a journey to Mauritius Island, the second author collected several specimens of a *Mycena* species belonging to sect. *Roridae* in the Botanical Garden of Curepipe. Besides taking some photographs from fresh material, a macroscopic description was made. Subsequently, the first author examined the microscopic characters from the exsiccatum and provided the microscopic description and the drawing. After comparison with the other species cited in the literature (KÜHNER 1938; SMITH 1947; MÉTROD 1949; MAAS GEESTERANUS 1983; PEGLER 1986; SINGER 1986, 1989; GRGURINOVIC 1995), we became sure to have a species not yet described.

***Mycena mauritiana* ROBICH & HAUSKNECHT, spec. nova** (Colour fig. III, Figs. 1-4)

Descriptio latina:

Pileus 8-17 mm latus, plano-convexus, interdum disco depresso, brunneus, aurantio-brunneolus, griseoaurantius, disco brunneo vel obscure brunneo. Lamellae albidae, pallide aurantiogriseae, decurrentes, acie albida. Caro inodora. Stipes 15-22 mm altus, 1-2,5 mm crassus, aequalis, glutinosus, superne albus, inferne brunneoflavidus vel rufus, basi sine bulbo et pilis.

Sporae 7-7,5(-8,0) x 3,5-4,0 µm, ellipsoideae, amyloideae. Basidia 19-25 x 5-6 µm, 4-sporigera, clavata. Cheilocystidia 25-40 x 8,5-13,5 µm, claviformia, laevia, apice rotundato-inflato. Epicutis e hyphis sphaerae similibus, subpyriformia, 22-50 x 18-30 µm, constituta. Externae stipitis hyphae 1,5-3,5 µm latae, laeves, desinentes in partes longas 20-70 µm, multis tumoribus 4-12 µm latis, in gelatino contextu submersis, praeditas. Fibulae adsunt.

Habitatio: gregaria et caespitosa usque ad 15 specimina supra ramula tropicarum plantarum foliis latis.

Typus: Mauritus: Curepipe, Botanical Garden, 22. 2. 2000, leg. A. HAUSKNECHT (WU 20977, holotypus; isotypus in herbario GR and MCVE 883).

Characters:

Pileus: 8-17 mm broad and up to 10 mm high, plano-convex, in older specimens the centre somewhat depressed, hygrophanous, striate up to $\frac{1}{4}$ of the radius, in dry weather neither slimy nor glutinous; in the centre brown, dark brown to nearly umber brown (KORNERUP & WANSCHER 1975: 6EF5, 6EF6, 6F5-6), gradually paler towards the margin, brown, brownish, camel brown (6E5, 6DE4, 6D4) to brownish orange, pale orange grey (5C3-4, paler than 5B3), in older specimens the margin being cream, beige-whitish. Surface spotted darker brown or yellowish brown on paler ground.

Lamellae: distinctly decurrent, moderately crowded, narrow, first whitish, then pale greyish orange (5C3-4); lamellar edge whitish.

Stipe: 15-22 mm long, 1-2.5 mm thick, equal, often flexuous, viscid and glutinous all over, the stems sticking together, distinctly bicoloured with white to whitish apex and gradually coloured towards the base which becomes yellowish brown to reddish yellow; no bulb or hairs observed on the base.

Context: without distinct smell.

Spores: 7-7,5(-8) x 3,5-4,0 µm, ellipsoid, with dull content, with very small hilar appendage, germinating in already on the lamellae, strongly amyloid.

Basidia: 19-25 x 5-6 µm, tetrasporous, clavate.

Cheilocystidia: 25-40 x 8,5-13,5 µm, claviform, smooth, with rounded-enlarged apex, with refringent content yellow-grey in KOH, not embedded in gelatinous matter, covering all the lamellar edge.

Pleurocystidia: not observed.

Pileipellis: consisting of cells being spheroidal, subpyriform, smooth, yellow in Melzer, 22-50 x 18-30 µm, with dark brown content, not embedded in gelatinous matter, forming a cellular layer. Below this layer some vesicular, cylindrical-vesicular, enflated 10-35 µm wide hyphae. Hyphae of lamellar trama similar to those of pileipellis but on average narrower, 10-25 µm. Subhymenial layer formed by cylindrical-twisted, 8-11 x 2-3 µm large hyphae.

Hyphae of the cortical layer of the stipe: cylindrical, the internal ones up to 35 µm wide, pseudoamyloid in vinaceous red and metachromatic in deep violet; the external ones 1,5-3,5 µm wide, smooth, yellow in Melzer, not metachromatic; terminal elements of the same length, 20-70 µm, with numerous flexuous, contorted excrescences, 4-12 µm wide, embedded in a glutinous layer, with dark brown pigment, very abundant, covering the stipe and forming dense very interwoven masses.

Hyphae of pileus context and of lamellae: pseudoamyloid in vinaceous red.

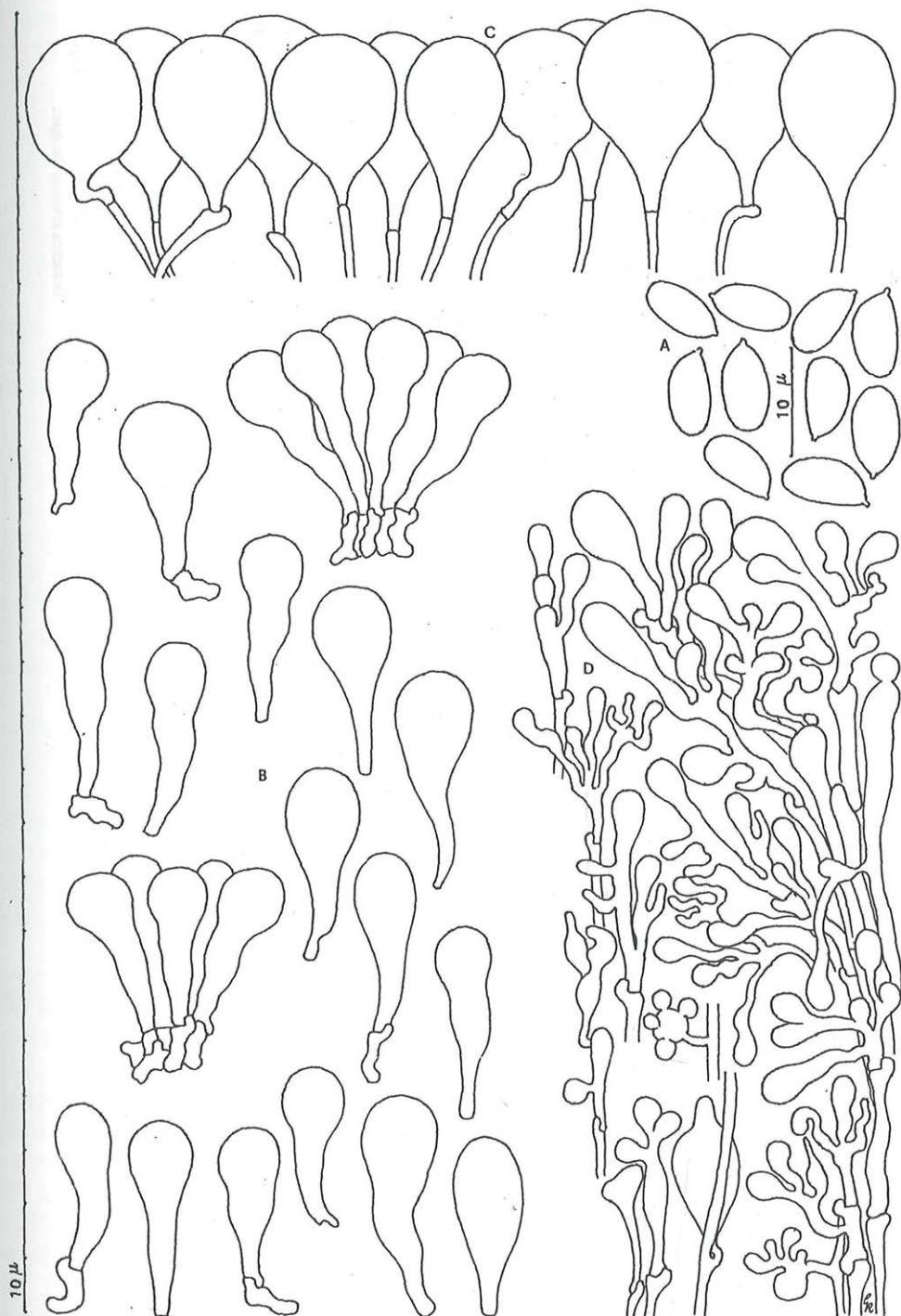
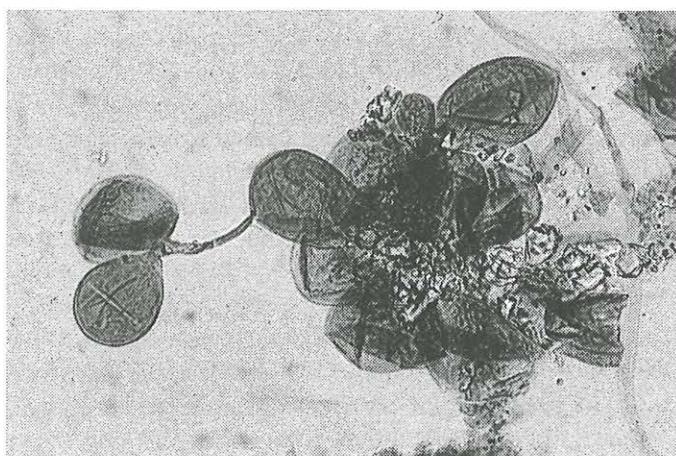
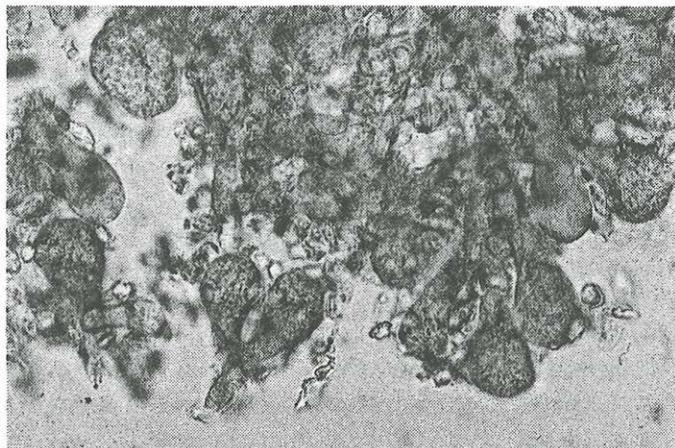


Fig. 1 A-D. *Mycena mauritiana*, holotype. A spores. B cheilocystidia. C pileipellis. D cortical layer of the stipe.

Table 1. Characters of *Mycena mauritiana*, *M. fuscororida*, *M. irritans*, *M. lamprospora* and *M. yirukensis*

	<i>M. mauritiana</i>	<i>M. fuscororida</i>	<i>M. irritans</i>	<i>M. lamprospora</i>	<i>M. yirukensis</i>
Pileus	brown, brownish, camel brown, brownish orange, pale orange-grey, centre somewhat depressed, brown or dark brown	dark brown, centre grey-brown, brownish orange, pale yellowish brown	white or cream turning pale brownish, centre darker coloured	pale whitish or pale brownish, centre dry to lubricous, dull, pale towards the apex	adnate to decurrent, distant, edge denticulate
Lamellae	decurrent, whitish, pale grey- ish-orange, edge whitish smell indistinct	white, edge concolorous 4.10 x 0.5 mm, grey-brown, glutinous, white to yellowish springing from an unobtrusive brown or reddish yellow, no bulb nor hairs	white, edge concolorous -45 x 1 mm, whitish at the apex, brown towards the base	-60 x 2 mm, whitish or pale brown at the apex, brown towards the base	35 x 1.5 mm, pale towards the apex, dark blond to light brown towards the base, with a circle of white strioge hairs or base naked on leaf litter of <i>Nothofagus carrii</i> , <i>ninghamii</i> , or amongst moss on wood, or on fallen phyllodes of <i>Acacia verticillata</i>
Context Stipe	15-22 x 1-2.5 mm, viscid and glutinous, white to yellowish brown or reddish yellow, no bulb nor hairs	in bundles, on rotten stems of a <i>Dicoryle-</i> tropical broadleaved tree	on rotten wood	on rotting leaves, twigs, bark and wood of trees, <i>Nothofagus carrii</i> , <i>Lithocarpus</i> and <i>Castanopsis</i>	19.2-31.2 x 6.5-8.4 μm
Habitat					22.1-52.3 x 5.4-11.7 μm , cylindro- ventricose, broadly ventribose-ros- trate or strangulate, rarely bifurcate at the apex
Spores	7.7-5 (-8) x 3.5-4 μm , ellip- soid, strongly amyloid	9.0-9.8 x 4.6-5.4 μm	6.8 x 3.4 μm ellipsoid (rarely subcylindrical)	6.5-8.5 x 3-3.5 μm , ellipsoid to subcylindrical	6.4-8.7 x 3.2-4.7 μm narrowly el- lipsoid to ellipsoid, weakly amyloid
Basidia	19.25 x 5-6 μm , 4-spored	c. 25 x 7.9 μm	16-25 x 4-5 μm	19.2-31.2 x 6.5-8.4 μm	
Cheilocystidia	25-40 x 8.5-13.5 μm , cla- vate, smooth, apically broad- ly rounded with an yellow- grey refractive content, not embedded in gelatinous mat- ter	40-58 x 4.5-5.5 μm (apex 7-11 μm), slender-clavate, capitate, rarely furcate	35-60 x 7-13 μm , clavate	20-50 x 5-15 μm , irregularly cla- vate, furcate or subcoralloid, no pigment	22.1-52.3 x 5.4-11.7 μm , cylindro- ventricose, broadly ventribose-ros- trate or strangulate, rarely bifurcate at the apex
Pileipellis	22-50 x 18-30 μm broadly clavate smooth cells, subcylin- driform, dark brown content, not embedded in gelatinous mat- ter	two kinds of erect cells. 40-65 x 8-18 μm , subcylindrical, and covered with scattered small crystals	25-50 x 18-45 μm , occasionally clavate, intermixed with catiocys- tidia-like cells	5-30 x 10-50 μm , subglobose or clavate, intermixed with catiocys- tidia-like cells	30-64 x 8-28.2 μm spheropodum- ulate to strangulate cells
Hyphae cortex	1.5-3.5 μm wide				2.2-4.0 μm wide
Caulocystidia	20-70 x 1.5-3.5 μm , with ex- crescences 4-12 μm wide	24-33 x 4.5-10 μm , slender cla- vate, rarely furcate			28.8-44 x 4-8 μm cylindrical, rarely with one or a few large branches towards the apex



Figs. 2-4. *Mycena mauritiana*, holotype. 2. Cheilocystidia, $\times 1320$. 3. Cells of pileipellis, $\times 780$. 4. Caulocystidia, $\times 1320$.

Clamp-connections: observed everywhere.

Habitat: gregarious to caespitose in bundles up to 15 fruitbodies on rotten stem of tropical broadleaved trees.

The cellular epicutis consisting of smooth spheroidal elements and the all over glutinous stipe suggest to place *M. mauritiana* in sect. *Roridae*. *Mycena rorida* (FR.) QUÉL., the only european species of sect. *Roridae* differs from *M. mauritiana* on account of the white or hyaline-white, up to 65 mm long stipe, the 9-12 µm long spores, the fusoid-ventricose cheilocystidia and the terminal cells of the hyphae of the cortical layer of the stipe being flexuous, branched but with sparse excrescences.

In the Southern Hemisphere at least ten more species of sect. *Roridae* have been collected. Four of them, *M. fuscororida* MAAS G. & DE MEIJER, *M. irritans* HORAK, *M. lamprospora* CORNER & HORAK, and *M. yirukensis* GRGURINOVIC are compared in Table 1 with *M. mauritiana*.

Mycena praeclara HORAK (1978: 23), a species from New Caledonia, has an orange to orange-red pileus, cylindrical, 7,5-9,5 µm long spores and lageniform or fusiform, smooth cheilocystidia, occasionally intermixed with cystidia with excrescences.

Mycena austrororida SINGER and differs from *M. mauritiana* on account of the white, pale grey-brown to yellow-brown pileus marked by brown or black dots or little scales, the broadly ellipsoid spores (9-12 x 6-8 µm) and the cylindrical-clavate, 40-80 µm long cheilocystidia. *Mycena gomezii* SINGER differs by the abundant mycelium at the stipe base, the narrower spores (2,3-3,5 µm) and the ventricose to utriform, often mucronated cheilocystidia.

In addition to *M. fuscororida*, two more species of sect. *Roridae*, collected in Paraná (Brazil), have been published by MAAS GEESTERANUS & DE MEIJER (1997: 96), *M. albororida* and *M. ornatororida*. *Mycena albororida* has a very small (1-6 mm), white pileus with grey-yellow centre, a white stipe with basal disc and a little larger spores. *Mycena ornatororida* differs from *M. mauritiana* by very decurrent, white lamellae with a dark brown lamellar edge, white stipe, cylindrical spores, broadly utriform or more rarely clavate cheilocystidia, and presence of pleurocystidia (the only known species of sect. *Roridae* with pleurocystidia).

Mycena baccatipes MÉTROD from Madagascar differs from the species described here by gregarious growth on leaves, twigs and stumps of *Eucalyptus*, very small (-6 mm) vinaceous red pileus with reddish brown centre and whitish margin, reddish brown to brown-black stipe with the base surrounded by white hairs, smaller spores (6.5-7 x 3-3.5 µm) and terminal elements of the external hyphae of the cortical layer of the stipe constituted by ovoid or subspherical cells with long extensions with a diameter of about 1 µm.

In conclusion, on account of the colour of the pileus, the stipe lacking hairs at the base, the clavate cheilocystidia with rounded-enlarged apex and the hyphae of the cortical layer of the stipe ending with elements with numerous flexuous twisted excrescences forming interwoven masses, *M. mauritiana* has to be placed among *M. fuscororida*, *M. irritans*, *M. lamprospora* and *M. yirukensis*.

Key to the species of sect. *Roridae*

- 1 Pleurocystidia absent
1* Pleurocystidia present

2

***M. ornatororida* MAAS G. & DE MEIJER**

- 2 Stipe base without hairs or basal disc

3

- 2* Stipe with white hairs or basal disc

8

- 3 Spores 6-9 µm long

4

- 3* Spores 9-12 µm long

7

- 4 Pileus deep orange or orange-grey, cheilocystidia lageniform or fusiform (also with brush-like cystidia)

***M. praeclera* HORAK**

- 4* Pileus white cream, whitish, pale brownish, brown, brownish orange, pale orange-grey

5

- 5 Pileus brown, camel brown to brownish orange, pale orange-grey, stipe base yellowish brown to reddish yellow, cheilocystidia clavate, 25-40 µm long with a broadly rounded apex, content yellow-grey

***M. mauritiana* ROBICH & HAUSKNECHT**

- 5* Pileus white cream, whitish, pale brownish, stipe base brown, cheilocystidia clavate, 20-60 µm long

6

- 6 Lamellae white, edge concolorous, cheilocystidia 35-60 µm long, clavate, smooth, with refringent content, pileipellis constituted by globose to clavate cells

***M. irritans* HORAK**

- 6* Lamellae white or pale brownish, edge albo-fimbriate, cheilocystidia 20-50 µm long, irregularly clavate, furcate or subcoralloid, pileipellis constituted by subglobose or clavate cells intermixed with furcate cells

***M. lamprospora* CORNER ex HORAK**

- 7 (3) Spores 9-12 x 3.5-5.0 µm, ellipsoid or subcylindrical, cheilocystidia fusoid or ventricose, pileipellis constituted by broadly clavate to pyriform cells with yellow-brown content

***M. rorida* (FR.) QUÉL.**

- 7* Spores 9-12 x 6-8 µm, broadly ellipsoid, cheilocystidia cylindrical-subclavate to elongate-clavate, pileipellis constituted by clavate cells with brown pigment

***M. austrororida* SINGER**

- 8 (2) Stipe with white hairs

9

- 8* Stipe with basal disc

11

- 9 Pileus white-brown or dull spotted yellowish brown 10
- 9* Pileus vinaceous red, centre reddish brown, stipe reddish-brown or black-brown at the base
- M. baccatipes* MÉTROD
- 10 Pileus white-brown, stipe mouse grey at the base
- M. gomezii* SINGER
- 10* Pileus dull spotted yellowish brown, stipe dark blond to pale brown at the base
- M. yirukensis* GRGURONIVIC
- 11 (8) Stipe white, pileus white, centre pale grey-yellow, cheilocystidia subcylindrical, slender-clavate, 5.5-10 x 23-36 µm, with oily content
- M. albororida* MAAS G. & DE MEIJER
- 11* Stipe greyish-white, grey-brown, pileus dark brown, centre grey-brown, cheilocystidia slender-clavate, capitate, 40-58 x 4.5-5.5 µm, apex 7-11 µm broad
- M. fuscororida* MAAS G. & DE MEIJER

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