Notes on the Korean Higher Fungi(XVII)

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ABSTRACT

Many higher fungi were collected at Mt.Manrae, Mt.Kirin, Mt.Nam, Mt.Unjang, Mt.Yonsuk, Mt.Minjuji from May, 2000 to June, 2001 and they were identified. As the result, *Marasmius buxi, M. epiphylloides, M. hudsoni, Mycena erubescens, Agaricus bisporus var. bisporus, Panellus ringens, Lactarius aquiflus, Leccinum quericinum* were newly discovered in Korea. They were designed Korean common names by author.

Key Words : *Marasmius buxi, M. epiphylloides, M.hudsoni, Mycena erubescens,Agaricus bisporus var. bisporus, Panellus ringens, Lactarius aquiflus,Leccinum quericinum.*

INTRODUCTION

The study of higher fungi has not been done completely in Korea. Fungi play a role a decomposer and control the balance of an ecology system. Also they have provided valuable resources for a long time as food, forests and pharamacy.

Mt.Manrae is located in Chinchon-gun, Chungchengbuk-do; Mt.Kirin in Chonju city, Chollabuk-do; Mt.Nam Chungju city, Chungchengbuk-do; Mt.Unjang in Chinan-gun, Chollabuk-do; Mt.Yonsuk in Wangju-gun, Chollabuk-do; Mt.Minjuji in Youngdong-gun, Chungchengbuk-do. These areas have a good condition for the development of higher fungi. This study has been continued as a series of Notes on the Korean Higher Fungi (I-XVII).

***Marasmius buxi* Fr.in Quel.** (키다리낙엽버섯:신칭)

Breiten. & Kranz. Fung. 234-235, fig.279, 1991

Pileus 1.5-5mm braod, hemispherical when young, then convex to plane, surface finely granular or micaceous powdery, reddish-brown, darker at disk, margin white, acute. Context membranous, odorless, taste mild. Lamellae broad, whitish, broadly adnate, edges smooth, powdered. Stipe 0.5-30mm long, 0.1-0.5mm thick cylindric, stiff, whitish-dark, brown when young, finely white farinaceous, glabrous, reddish brown to dark in age, apex whitish. Spores 8.5-13x3.5-4.5㎛ seed shaped, smooth, basidia 19-25x5-6㎛ two-spored, clavate, clamp connection at base, cystidia 19-25x5-6㎛ fusiform, pileipellis 17.5-32.5x10-12.5㎛, round clavate, with projection and thorn.

Habitat: Solitary or clustered on fallen tree branches. Summer.

Distribution: Korea(Mt.Manrae) and Europe.

Studies specimens : CHO-7093(21, July, 2000)

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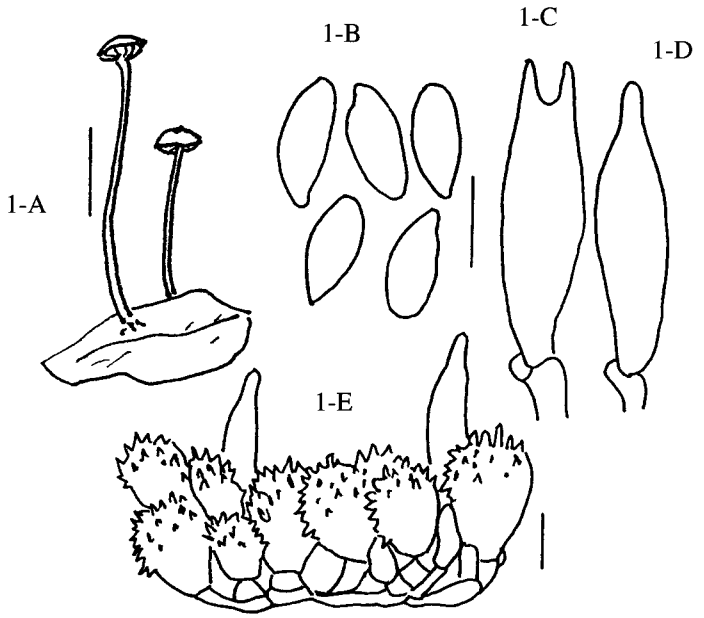

Fig.1. *Marasmius buxi* Fr.in Quel.
1-A, carpophores. 1-B, spores. 1-C,basidia. 1-D, cystidia. 1-E, pileipellis.
(bars: 1-A, 1mm. the others:10μm)

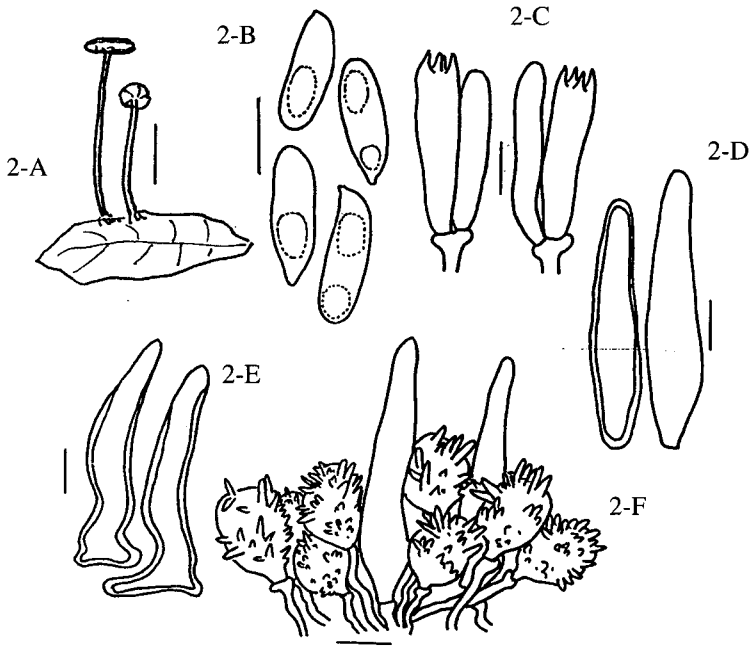

Fig.2. *M. epiphylloides* Rea
2-A, carpophores. 2-B, spores. 2-C,basidia. 2-D, cystidia. 2-E,caulocystidia. 2-F, pileipellis
(bars: 2-A, 1mm. the others:10μm)

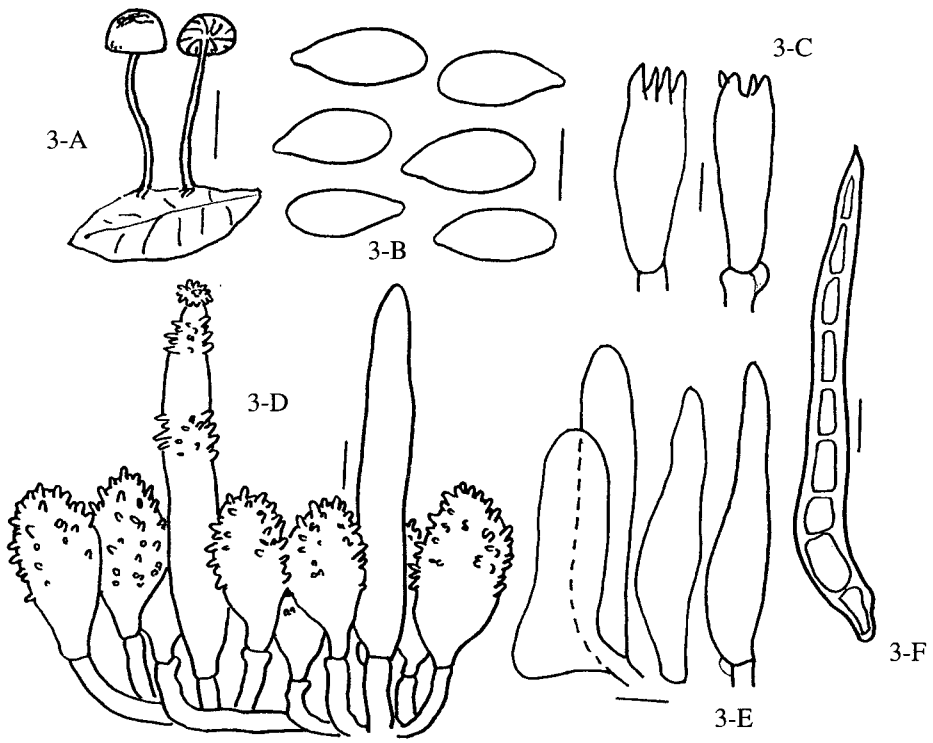

Fig.3. *M. hudsoni* (Pers.:Fr.)Fr
3-A, carpophores. 3-B, spores. 3-C,basidia. 3-D, cystidia. 3-E, pileipellis. 3-F, hair.
(bars: 3-A, 1mm. the others:10㎛)

collected at Mt.Manrae of Chinchon-gun in Chungchengbuk-do.

***M. epiphylloides* Rea (표피낙엽버섯:신칭)**

Breiten. & Kranz. Fung. 238-239, fig.284, 1991

Pileus 4-6mm broad, hemispherical at first, then convex to round shaped, disk depressed, surface radially furrowed, smooth, white, dull, disk ocherish, margin even, acute. Context white. Lamellae broad, boradly adnate or subdecurrent, edges smooth. Stipe 10-50mm long, 0.4-0.8mm thick, filiform, surface shiny, apex whitish, reddish brown, finely whitish flocose to glabrous, elastic. Spores 10-16.5x3-4㎛ cylindrical, long elliptical, with one or two with oil drop, basidia 55-60x7.5-10㎛, clavate, cystidia 62.5-67.5x12.5㎛ fusiform, clavate, thick-walled, caulocystidia 60-67.5x15-17.5㎛ irregular clavate, thick-walled, pileipellis 100-150x12.5-17.5㎛ clavate, with projection and thron.

Habitat: Solitary or clustered on fallen tree branches. Summer

Distribution : Korea(Mt.Kirin), Europe.

Studies specimens : CHO-6686(24, June, 2000) collected at Mt.Kirin of Chonju city in Chollabuk-do.

***M. hudsoni* (Pers.:Fr.)Fr. (주름낙엽버섯:신칭)**

Breiten. & Kranz. Fung. 240-241, fig.287, 1991.

Pileus 3-6mm broad, hemispherical at first, then convex, surface dull, smooth to slightly wrinkled, cream-colored with flesh pink tint, hairs 0.7mm long, reddish brown, margin acute, paler whitish. Context membranous, odorless, taste not detectable. Lamellae

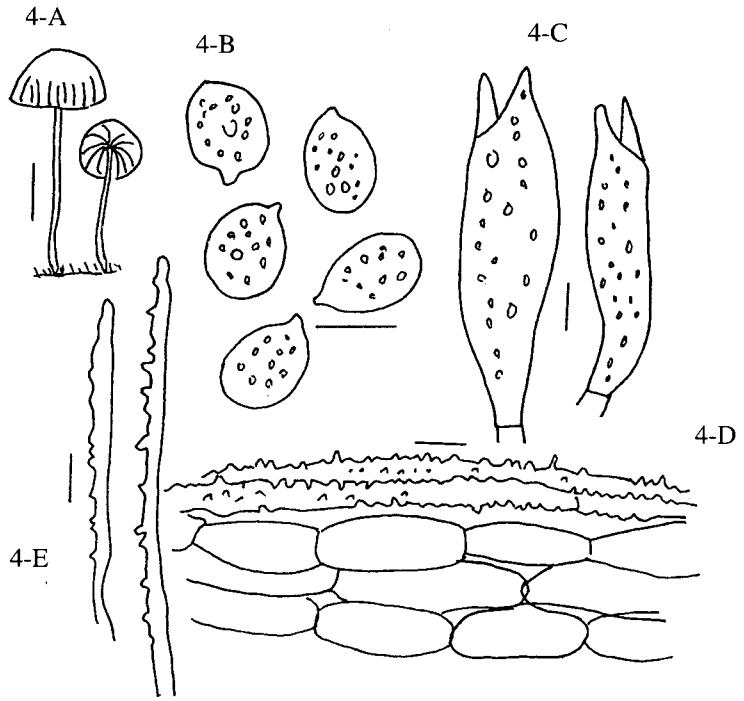

Fig.4. *Mycena erubescens* Hoehn
4-A, carpophores. 4-B, spores. 4-C,basidia. 4-D, pileipellis. 4-E, hyphal ends.
(bars: 4-A, 1mm. the others:10㎛)

white broad, some forked, edges smooth. Stipe 10-50mm long, 0.4-0.8mm thick, often bent, surface whitish when young, then brownish red, apex red to white, purinose, covered with brownish red. Spores 10-12x4-5㎛ elliptical, basidia 25-30x6-7㎛ clavate, clamp connection at base, cystidia 30-40x6-7㎛, clavate, clamp connection at base, seldom with projection and thron, pileipellis 45-50x5-6㎛ clavate, with projection and thron, hairs 55x5.5㎛ long clavate, thick-walled.

Habitat: Solitary or clustered on rotten wood. Summer.

Distribution : Korea(Mt.Nam), Europe.

Studies specimens : CHO-7271(24, August, 2000) collected at Mt.Mam of Chungju in Chungchengbuk-do.

***Mycena erubescens* Hoehn.** (붉은애주름버섯 : 신칭)

Breiten. & Kranz. Fung. 270-271, fig.333, 1991.

Pileus 5-10mm broad, hemispherical or conic at first, then campanulate shaped to convex, disk obtuse papillose, surface smooth, dull to satiny, ocher, pinkish brown, disk darker, margin paler whitish, whitish purinose when young, translucent-striate to the disk, margin acute, slightly crenate. Context watery brownish white, membaranous, odorless, taste bitter. Lamellae whitish with pink tinge at first, then grayish white, broad, adnexed, edges white, smooth. changed reddish when bruised. Stipe 20-40mm long, 1.0-1.2 mm thick, cylindric, often bent upward, surface smooth, dull silky, apex white, brownish toward the base, hollow, fargil, seldom slightly whitish fluid when broken. Spores 6.5-8.5x5-6㎛ broad elliptical, many with oil drop, basidia

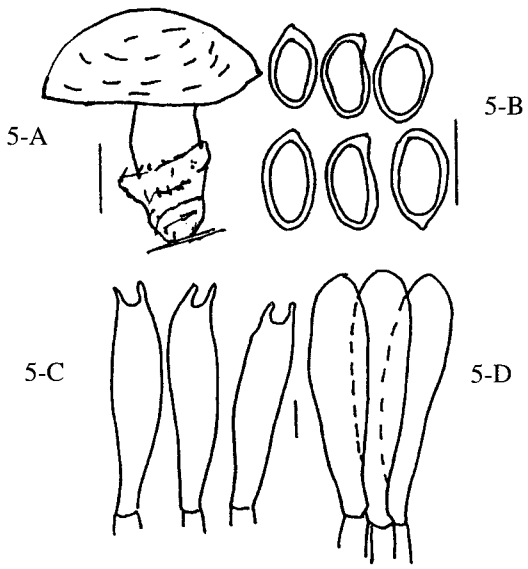

Fig.5. *Agaricus bisporus* (Lge.)Imbach var. *bisporus*
5-A, carpophores. 5-B, spores. 5-C,basidia. 5-D, hymenium layer
(bars: 5-A, 1mm. the others:10μm)

50-55x12.5-14.5μm clavate, with many small oil drops, pilleipellis of parallel hyphae 2-3.5μm wide, hyphal ends of the cortical layer at the stipe apex 5-6 μm wide.

Habitat: Clustered on fallen leaves. Late spring to summer.

Distribution : Korea (Mt.Unjang) and Europe.

Studies specimens : CHO-6738(5, July, 2000) collected at Mt.Unjang of Chinan-gun in Chollabuk-do.

Agaricus bisporus (Lge.)Imbach var. bisporus (양송이아재비:신칭)

Breiten. & Kranz. Fung. 164-165, fig.172, 1991.

Pileus 6-10cm braod, spherical or hemispherical at first, then convex to plane, finally undulatory, disk indented, surface smooth at first, dull, light brown, dingy brown, spiliting from the margin to disk in age, appressed squamulese on whitish background, margin smooth, attaching with veil remnants at first. Context white, changed orange at first when cut, in age red to reddish brown, then fading, thick-fleshed, odor aromatic, taste mild. Lamellae pale pink to flesh colored at first then darker purplish brown to black, narrow, free to adnexed, edges smooth, whitish. Stipe 5-7cm long, 2-3cm thick, cylindrical, solid, rigid, surface white, striate upper, longitudinally fbrillose below, then grayish brownish toward the base, brownish when touched, annulus ascending, thick, white.

Spores 6.5-7.5x3.8-5μm elliptical, thick-walled, basidia 35-45x7.5-10μm clavate two-spored, hymenium layer 17.5-45x7.5-10μm, clavate.

Habitat: Clustered on grass of forests. Summer.

Distribution : Korea(Mt.Kirin) and Europe.

Studies specimens : CHO-7513(21, June, 2001) collected at Mt.Kirin of Chonju city in Chollabuk-do

***Panellus ringens* (Fr.) Romagn.** (반지부채버섯:신칭)

Breiten. & Kranz. Fung. 308-309, fig.390, 1991

Pileus 5-15mm broad, resupinate when young, then cup-shaped to expanded, spathulate to flabellate,

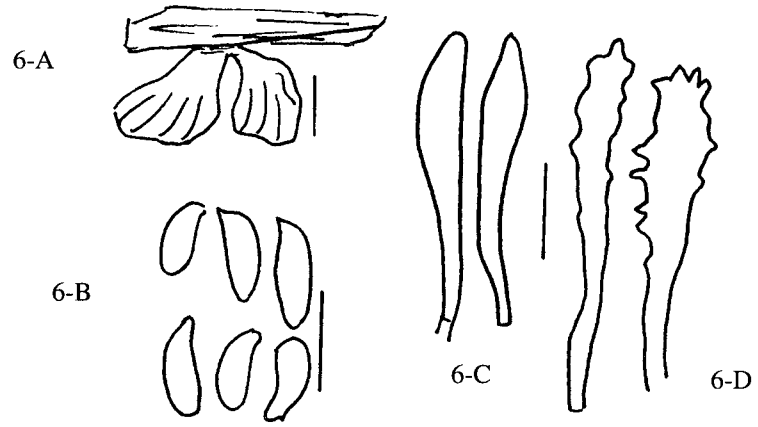

Fig.6. *Panellus ringens* (Fr.) Romagn
6-A, carpophores. 6-B, spores. 6-C,cystidia. 6-D, hyphaal ends
(bars: 6-A, 1mm. the others:10μm)

surface flesh-pinkish brown, dull, whitish farinose, margin striate to disk. Context whitish, elastic, thin, odorless, taste mild, Lamellae flesh-ocherish brown, broad, edges slightly darker, smooth. Stipe rudimentary, indistinctive.

Spores 3-6.5x2-3μm seed shaped, projection at end, cystidia 18-26x2.5-3μm clavate, hyphal ends of the stipe surface 18-26x2.5-3μm long clvate with projection.

Habitat: Solitary or clustered on rotten wood. Spring to summer.

Distribution : Korea(Mt.Yonsuk) and Europe.

Studies specimens : CHO-6660(28, May, 2000) collected at Mt.Yonsuk of Chinan-gun in Chollabuk-do

***Lactarius aquiflus* Pk.** (물끼젖버섯:신칭)

Phillips, Mushroom, 106-107, 1991.

Pileus 5-15cm broad, convex to slightly umbonate,

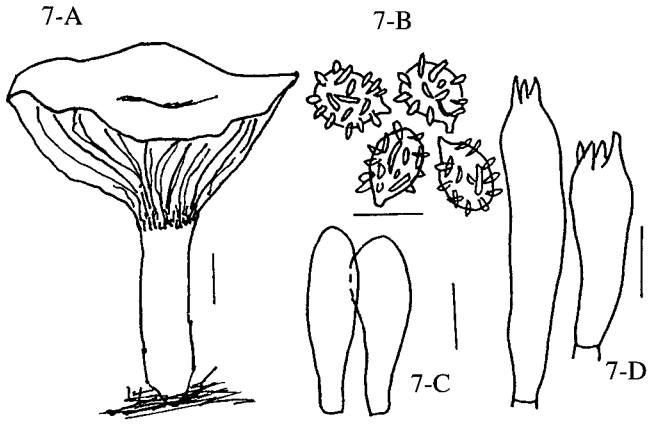

Fig.7. *Lactarius aquiflus* Pk.
7-A, carpophores. 7-B, spores. 7-C,basidia. 7-D, hymenium layer
(bars: 7-A, 1cm. the others:10μm)

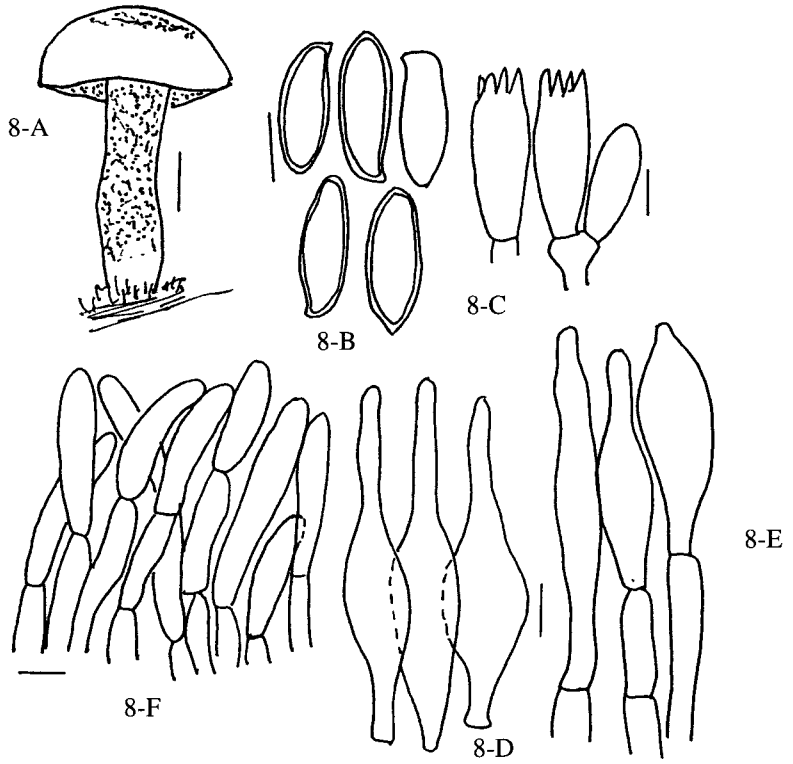

Fig.8. *Leccinum quericinum* (Pilat)Green and Watling
8-A, carpophores. 8-B, spores. 8-C,basidia. 8-D, pleurocystidia. 8-E, chilocystidia. 8-F, hyphae from lamellae trama (bars: 7-A, 1cm. the others:10㎛)

margin inrolled at first, then expanding to flattened, slightly funnel-shaped, dull grayish brown to yellowish brown, yellowish or cinnamon, often warts with darker squamules, surface roughened fibrillose, with tiny scales. Context thin, fragile, whitish. Latex watery, clear.

Odor faint. Taste mild, slightly bitter. Lamellae adnexed to slightly decurrent narrow, crowded forking near stipe, pale buffy ocher. Stipe 5-7cm long, 1.0-1.5cm thick, hollow, often rather long and slender, concolorous with pileus, white at base, surface often powdery, slightly downy. Spores12-13.8x9.8-12.5㎛ subglobose, thick-walled, with projection and long granulation, basidia 45-67.5x12.5-㎛ clavate, hymenium layer 30-35x4-5㎛, clavate.

Habitat: Clustered on soils of forests. Summer.

Distribution : Korea (Mt.Minjuji) and North America.

Studies specimens : CHO-7214 (12, August, 2000) collected at Mt.Minjuji of Youngdong-gun in Chungchengbuk-do

***Leccinum quericinum* (Pilat)Green and Watling (참나무껄껄이그물버섯:신칭)**

Phillips, Mushroom, 209, 211, 1991.

Pileus 8-10cm, convex to round shaped, darkish brown to brown, fibrilose scaly to smooth, reddish brown. Context white to cream, pink or vinaceous in pileus, grey to green flush in stipe at base. Taste and smell pleasent. Tubes white to pale buff to vinaceous,

deep brown. Pores small, the concolorous with the tubes. Stipe 10-15cm long, 2.0-3.5cm thick, apex pale brown to buff, whitish scales to pale brown, base whitish to buff, whitish scales to rusty, purplish red, darkish when touched, solid. Spores 10-15x3-4㎛ long fusiform, thick-walled, spore print snuff-brown, basidia 27.5-37.5x8.8-10㎛ clavate, pleurocystidia 62.5-100x15-25㎛ flask shaped, cheilocystidia 37.5-50x3.8-12.5㎛ flask form, hyphae from lamellae trama 12.5-30x1.8-2.5㎛ cylindrical.

Habitat: Clustered on soils forests with oak. Season late summer to autumn. Edible.

Distribution : Korea (Mt.Minjuji) and Europe.

Studies specimens : CHO-7096 (22, July, 2000) collected at Mt.Minjuji of Youngdong-gun in Chungchengbuk-do.

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