

Notes on the Korean Higher Fungi (XIV)

Duck Hyun Cho

Department of Biology, Natural Science College, Woosuk University, Chonju, 565-701 Korea

ABSTRACT

Many higher fungi were collected at Mt.Jiri, Mt.Moak, Mt.Sunun, Mt.Obong, Mt.Yonsuk, and Samrey-up from 1995 to 1997. They were identified and according to the results, Genus *Myxomphalia* and species of *Lentinellus ursinus*, *Marasmius torquescens*, *Omphalina griseopallida*, *Myxomphalia maura*, *Amanita perpasta*, *Pasthyrella bipellis*, *Conocybe aurea* and *Agrocybe farinacea* were newly to Korea.

Keywords: *Myxomphalina*, *Lentinellus ursinus*, *Marasmius torquescens*, *Omphalina griseopallida*, *Myxomphalia maura*, *Amanita perpasta*, *Pasthyrella bipellis*, *Conocybe aurea*, *Agrocybe farinacea*.

Mt.Jiri National Park is located boundary of Chonlabuk-do, Chonlanam-do and Kyungsangnam-do. It has good much of condition for mycological habitations. Mt.Moak Provincial Park, Mt.Yonsuk, Mt.Obong and Samrey-up are near Chonju city, which have good forests for higher fungi habitations.

Study on higher fungi in Mt.Jiri were by Park, Cho & Lee(1986), Park & Cho(1988, 1989) and Cho(1996, 1997). The study on others were partly by Cho(1990, 1991, 1996a, 1996b, 1997a, 1997b.) One species was collected at Mt.Jiri, Mt.Moak and Mt.Yonsuk. Three species were collected at Mt.Obong and two species were collected at Samrey-up.

The purpose on study is to know diversity and geographical distributions of higher fungi. They were designed Korean common names by author. They are added list of fungi in Korea.

Lentinellus ursinus (Fr.) Kühn. 곰갯버섯아재비(신칭)
Kuhner, Le Botaniste, 100, 1926.

Agaricus ursinus Fr. Syst. Myc. 1:185, 1821.

Pileus 1.5-4cm broad, hemi-circle or fan-shaped, dawning from base to center, margin hairless, at first pale brown to pale yellowish brown, more or less pink color, finally bright or darkish brown from base to margin in

pileus. Context thin, elastic with hard, white to pink, more or less hard when dry, taste bitter. Lamellae crowded to sparse, pale brown to grayish brown, edge serrate. Stipe none.

Spores 4-4.5 × 3-3.5µm, subglobose to elliptical, seldom with fine warts, amyloid, spore print white, hyphae from lamellae trama 3.8-5µm wide, wavy-shaped.

Hab : Clustered on rotting wood of broadleaved tree.
Summer

Distr : Korea (Mt.Jiri), Japan and Asia

Specimens studied : CHO-4588 (1996.7.27) collected at Chonbul-sa temple of Mt.Jiri National Park.

Marasmius torquescens QuÉlet. 목걸이낙엽버섯(신칭)
QuÉlet, Jur.et Vosg. 1, t. 22, fig.3.

Breitenbach & Kranzlin, Fung. Switzer. 244 f.294. 1991.

Pileus 2-4cm broad, hemispherical to plane with small umbo, surface smooth, dull, even and translucent-striate up to half of the radius when young, later radially wrinkled-grooved, hygrophanous, yellowish brown when dry, beige brownish with brown center when moist, margin acute, crenate in age. Context white, thin, tough, odor faint, taste mild. Lamellae dingy cream-colored, adnexed to almost free, edges smooth. Stipe 3-6 cm long, 1.5-3mm thick, cylindrical, apex pale cream-colored, increasingly reddish brown below, darkish toward the base,

dull, finely farinose, stiff, hollow, with cream-colored mycelium at the base.

Spore $8-10 \times 4-5.5\mu\text{m}$, elliptical, smooth, hyaline, with projection, at end, rarely with one oil drop, basidia $35-40 \times 5-6.5\mu\text{m}$, clavate, clamp connection present at the base. Cystidia $15-25 \times 8.8-10\mu\text{m}$, flask-shaped.

Hab. : Clustered on leaves litter or soils. Summer.

Distr : Korea (Samye-up) and Europe.

Specimens studied : CHO-4431(1996.6.19) collected at Samye-up of Chonlabuk-do.

Omphalina griseopallida (Desm.) QuΓel. 회색술발버섯(신칭)

Rea, Brit.Basidio., Bib.Mycol. 431, 1922.

Phillips, Mushrooms, 69. 1981.

Pileus 1.5-2.5cm broad, convex with depressed center, grayish-brown with dark, pallid when dry. Context thin, concolorous with the pileus. Lamellae decurrent, concolorous with the pileus, crowded. Stipe 9-10mm long, 2-3mm thick, concolorous with the pileus, base covered in white mycelium.

Spores $8-11 \times 7-8\mu\text{m}$, broad elliptical, with projection at end, nonamyloid, spore print white, basidia $37.5-43.8 \times 6.3-7.5\mu\text{m}$, clavate, two-spored under the microscope.

Hab. : Clustered on soils of grasses. Summer. Unedible.

Distr. : Korea (Chonju) and Europe

Specimens studied : CHO-4366 (1996.5.9) collected at Hyundai apartment of Hyoza-dong in Chonju

Genus Myxomphalia Hora 점액술발버섯속(신칭)

Hora, Trans.Brit. Mycol. Soc. 43:453,1960.

Syn. *Fayodia* Kühner

Habit of the carpophores omphaloid, pigment dark, dusky and dull, clamp connection present, rarely without clamps. Lamellae ascendant to descendant, decurrent. Spores oblong, ellipsoid or globose, amyloid. Basidia sometimes bisporous. Stipe central.

Habitation on decayed trunks, log, fallen branches.

Myxomphalia maura (Fr.) Hora 회점액술발버섯(신칭)

Phillips, Mushrooms, 68-69, 1981.

Pileus 1-3cm broad, hemispherical to convex with the center depressed, dark grayish brown, drying paler and shiny. Context white to gray. Lamellae adnate-decurrent, white to pale gray. Stipe 2-3.5cm long, 2-3.5mm thick, concolorous with the pileus, more or less paler color than pileus, solid.

Spores $5.5-7.5 \times 4-5\mu\text{m}$, broad elliptical, wall-thickened, spore print white, basidia $27.5-32.5 \times 5-7.5\mu\text{m}$, clavate, seldom with granule, cystidia $38.3-42.5 \times 11.3\mu\text{m}$, clavate, flask-shaped, hyphae from lamellae trama $42.5-67.5 \times 5-6.3\mu\text{m}$, cylindrical.

Hab. : Clustered on burnt ground in conifer wood. Summer to autumn.

Distr : Korea (Mt.Sunun, Samye-up) and Europe.

Specimens studied : CHO-4430(1996.6.19) collected at Samye-up near Chonju city.

Remarks : This species is said synonym of *Ompahalia maura* (Fr.) Gill. by Sing(1975).

Amanita perpasta Corner & Bas 사마귀광대버섯(신칭)

Imaz. & Hongo, Col.III.Mush.Jap. vol.1,133, pl.34. f.231, 1987.

Pileus 5-12cm broad, convex to plane, pale yellowish brown to pale brown, warts 2-3mm high, conic, brown, remnants of annulus in whole surface, margin small remnants. Context white to yellowish more or less. Lamellae free, cream-colored, 5-10mm wide, crowded, edge farinose. Stipe 8-10cm long, 1-2cm thick, base clavate, fusiform, bulbous 4-5cm diameters, often parallel furrow, concolorous with the pileus, finally reddish brown, surface circular like wheel of small brown scales, solid.

Spores $7-9.5 \times 6-7.5\mu\text{m}$, globose to subglobose, often with fine warts, amyloid, with projection at end, basidia $32.5-40 \times 10-11.3\mu\text{m}$, clavate, cystidia $40-45 \times 22.5-25\mu\text{m}$, flask-shaped, cell from lamellae trama $15-30 \times 15-27.5\mu\text{m}$, globose, subglobose, cell from annulus trama $18-36 \times 15-20\mu\text{m}$, flask-shaped, broad elliptical.

Hab. : Clustered on soils in forests. Summer to autumn.

Distr. : Korea(Mt.Moak), Japan, Malaysia and Singapore.

Specimens studied : CHO-4229(1995.9.17) collected at Mt. Moak of Chonlabuk-do Provincial Park.

Pasthyrella bipellis (Quél.) A.H. Smith 꺾질눈물버섯(신칭)

Imaz. & Hongo, Col. III, Mush, Jap, vol.1, 176, f.316, 1987

Pileus 1.5-3.5 cm broad, at first campanella to plane with convex, darkish brown with pink when wet, pale pinkish brown when dry, radially striate, margin white, floccose but easily vanishing. Context thin, concolorous with the surface. Lamellae adnate, sparse, darkish red-brown to darkish brown, edge white farinose. Stipe 4.5-8cm long, 3-4mm thick, more or less winding, hollow, surface floccose, fibrous apex white, base reddish brown to darkish brown.

Spores 10.5-13.8 × 6-7 μ m, elliptical, darkish purple-brown, with germ pore, basidia 22.5-30 × 12.5 μ m, cheilocystidia 35-50 × 10-16.5 μ m, fusiform, pleurocystidia 50-63 × 13-20 μ m, similar to cheilocystidia.

Hab. : Solitary or clustered on soils of humid forests. Spring to autumn.

Distr. : Korea (Mt.Obong), Japan, India, Europe, Africa and North America.

Specimens studied : CHO-4855 (1997.5.31) collected at Mt.Obong near Chonju city

Conocybe aurea (Schaeff.) Hongo 금빛종버섯(신칭)

Imaz. & Hongo, Col. III, Mush, Jap, vol.1, 183, 330, 1987.

Pileus 1-3cm broad, campanella to convex, golden yellow, striate when wet. Context thin, orange yellowish. Lamellae, adnate, pale ochre to cinnamon, 1.5-3mm wide, more or less sparse. Stipe 3-7cm long, 2-3mm thick, cylindrical, apex slender, base bulbous, pale yellowish, farinose, parallel striate, hollow.

Spores 11-13 × 6-7 μ m, elliptical, with one oil drop, with germ pore, basidia 26-32.5 × 11-13 μ m, fusiform, clavate, cheilocystidia 25-35 × 10-15 μ m, flask-form, clavate.

Hab. : Clustered on soils of humid forests. Summer to autumn.

Distr. : Korea(Mt.Obong), Japan, India and Europe.

Specimens studied : CHO-4854 (1997.5.31) collected at Mt.Obong near Chonju City.

Agrocybe farinacea Hongo 가루뽕버섯(신칭)

Imaz & Hongo, Col. III. Mush. Jap, vol 1, 189, f.342, 1987

Pileus 2-4cm broad, convex to plane at first, viscid none, smooth with striate, pale ochre to ochre, margin inrolled when young. Context thick, pale ochre or white, taste farinose. Lamellae adnate, at first pale brown to darkish brown, margin finely whit farinose, 2-4mm wide, crowded. Stipe 2.5-6.5cm long, 3-6mm thick, base bulbous, concolorous with the pileus, with fibrous striate, apex farinose. Annulus none

Spores 10-11.5 × 5.5-6.5 μ m, oval to elliptical, spore print pallid brown, basidia 25-40 × 5-8.8 μ m, clavate, cheilocystidia 34-60 × 10-18 μ m, fusiform, flask-shaped, apex round, pleurocystidia 40-60 × 18.5-22.5 μ m, similar to cheilocystidia.

Hab. : Solitary or clustered on soils of humid forests. Summer.

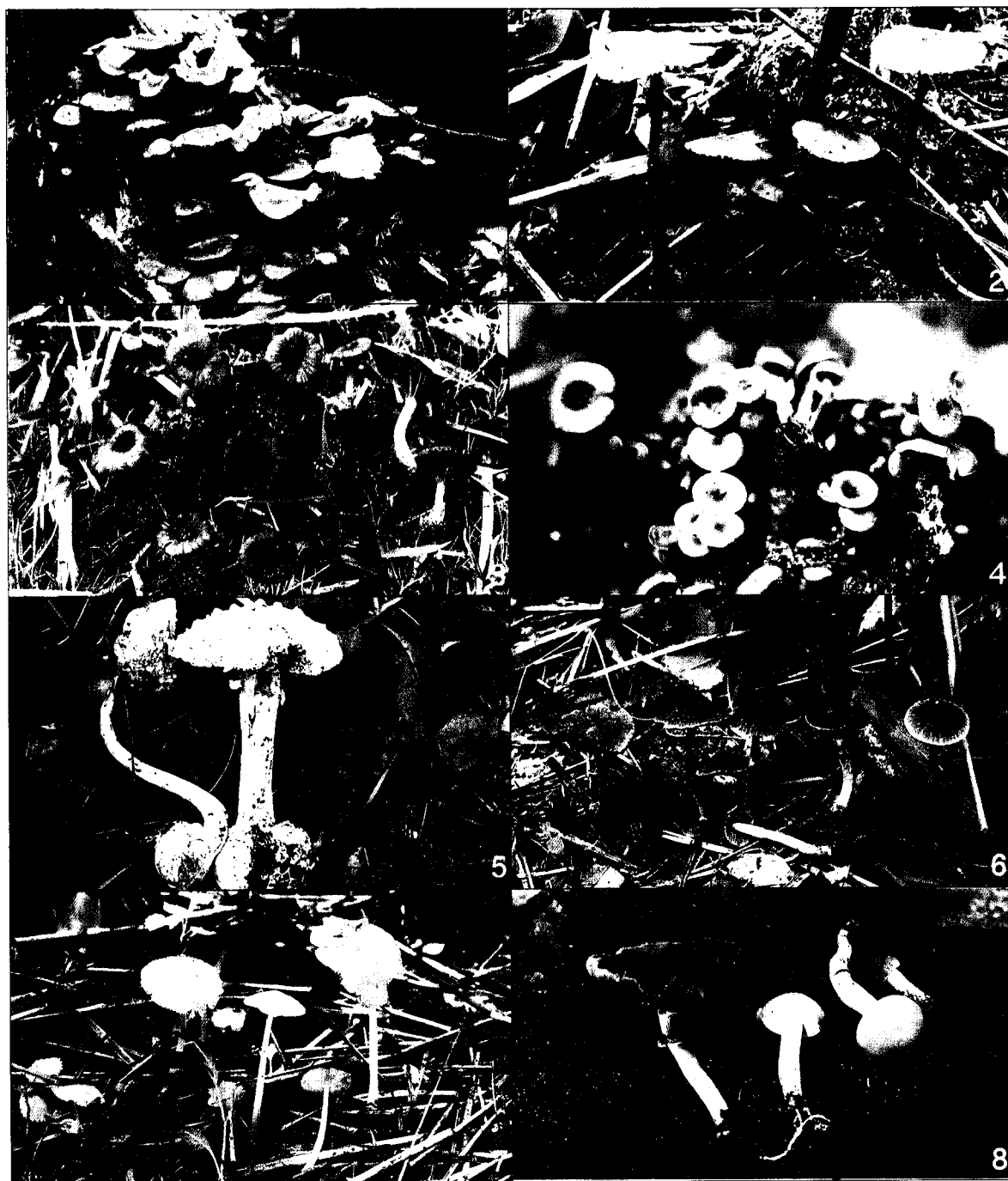
Distr. : Korea(Mt.Obong) and Japan.

Specimens studied : CHO-4842 (1997.5.17) collected at hiking trails of Mt.Obong near Chonju city.

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The Explanation
of Plate

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|---|---|
| 1. <i>Lentinellus ursinus</i> (Fr.) Kühn. | 2. <i>Marasmius torquescens</i> Quél. |
| 3. <i>Omphalina griseopallida</i> (Desm.) Quél. | 4. <i>Myxomphalina maura</i> (Fr.) Hora |
| 5. <i>Amanita perpastata</i> Corner & Bas | 6. <i>Pasthyrella bipellis</i> (Quel.) A.H. Smith |
| 7. <i>Conocybe aurea</i> (Schaeff.) Hongo | 8. <i>Agrocybe farinacea</i> Hongo |

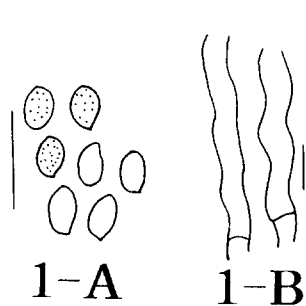


Fig. 1, *Lentinellus ursinus* (Fr.) Kühn.
1-A, spores. 1-B, hyphae from lamellae trama. (Bars: 10 μm)

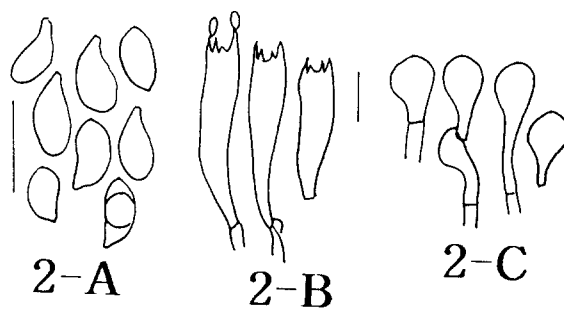


Fig. 2, *Marasmius torquescens* Quél.
2-A, spores. 2-B, basidia. 2-C, cystidia. (Bars: 10 μm)

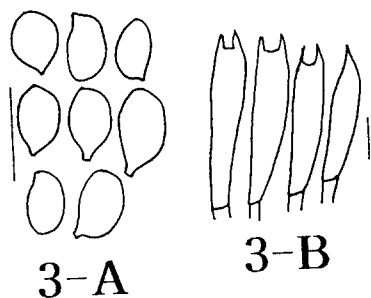


Fig. 3, *Omphalina griseopallida* (Desm.) Quél.
3-A, spores. 3-B, basidia. (Bars: 10 μm)

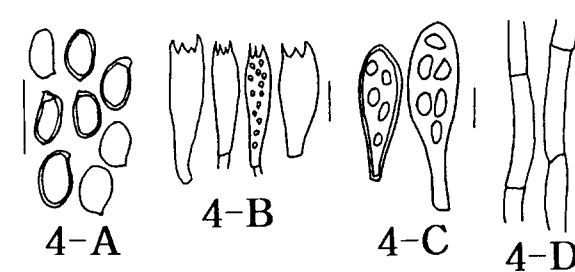


Fig. 4, *Myxomphalina maura* (Fr.) Hora
4-A, spores. 4-B, basidia. 4-C, cystidia.
4-D, hyphae from lamellae trama. (Bars: 10 μm)

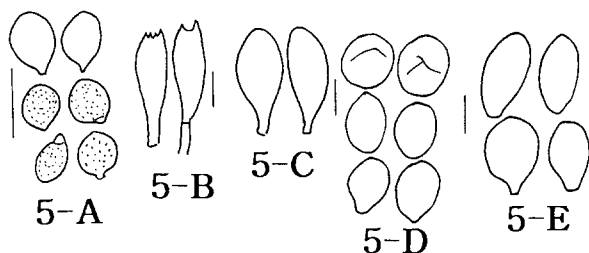


Fig. 5, *Amanita perpasta* Corner & Bas
5-A, spores. 5-B, basidia. 5-C, cystidia. 5-D, cell from lamellae
trama. 5-E, cell from annulus trama. (Bars: 10 μm)

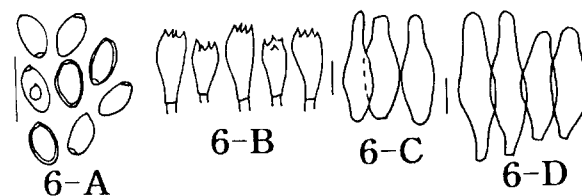


Fig. 6, *Pastyrella bipellis* (Quél.) A.H. Smith
6-A, spores. 6-B, basidia. 6-C, cheilocystidia, 6-D, pleurocystidia.
(Bars: 10 μm)

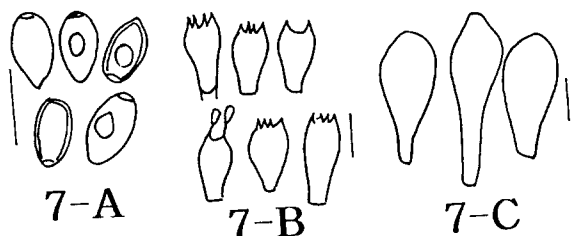


Fig. 7, *Conocybe aurea* (Schaeff.) Hongo
7-A, spores. 7-B, basidia. 7-C, cheilocystidia. (Bars: 10 μm)

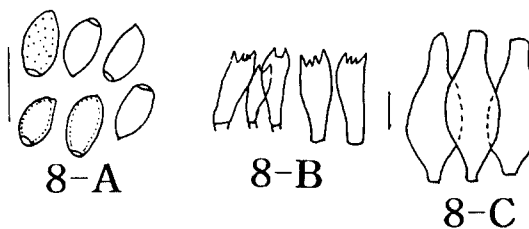


Fig. 8, *Agrocybe farinacea* Hongo
8-A, spores. 8-B, basidia. 8-C, Cheilocystidia and
pleurocystidia. (Bars: 10 μm)