

Notes on the Korean Higher Fungi (X I)

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韓國産 高等記 (X I)

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Abstrct

Many higher fungi were collected at Mt. Manduck, Chonju city, Mt. Naejang National Park. Mt. Balwang and Wolchul National Park. These species were identified. According to the results, *Hygrocybe marchii*, *Hydropus floccipes*, *Lepiota hystrix*, *Entoloma cinchonense* and *E. hypoporphryum* *E. mellum* were newly to Korea.

Key words: *Hygrocybe marchii*, *Hydropus floccipes*, *Lepiota hystrix*, *Entoloma cinchonense*, *E. hypoporphryum* and *E. mellum*

Hygrocybe marchii (Bres.) Moller 빨강꽃버섯(신칭)
Hygrophorus marchii, Bres, Icon. Myc.7:p1.343.1928
Imazeki & Hongo, Coll. Ill.Mush. Jap.vol. 49, p1.7, fig.43, 1987.

Pileus 2.0-4.0cm broad, convex to broad convex or plane with umbo, brownish red, then pinkish brown in age, viscid when wet. Margine irregular, easily torn. Lamellae adnate or adnexed, light yellow, sparse. Stipe 2.6-6.0cm long, 3.0-5.0mm thick, cylindrical, seldom plate, yellowish brown, hollow light concolorous with surface.

Spores 7.0-8.0(-9.0)x4.5(-4.0)-5.0 μ m, elliptical, fine warts, nonamyloid, basidia 18-22x1.5-2.0 μ m, steigmata 2.0-2.5 μ m high, narrowly clvate, hyphae from lamellae trama 15-50x5-7.5 μ m, cylindrical.

Habitat and habitated : Solitary or clustered on hiking road of mountain.

Distribution: Mt.Manduck

Specimens examined: CHO-2261 collected at Mt. Manduck on the 25th, July, 1991.

Hydropus floccipes(Fr.) Sing. 흰물털애주름버섯(신칭)

Pileus 1-2cm borad, coninic-convex, bell-shaped, dark to darkish gary. Lamellae white, adnexed, subsparse. Stipe 3-6cm thick, 1-3mm long, white to light yellow, fine farinaceous.

Spores 7.0-8. 0x5.0-6.0 μ m, subglobose, basidia 17.5-20x5.0-7.5 μ m, fusoid, clavate, cystidia 18-22x4-5 μ m, with line,ventricose, clavate.

Hbaiatat and haiatated: Clustered on fallen branches of tree.

Distribbution: Mt.Naejang National Park.

Specimens studied: CHO-2038 collected at Mt.Naejang on the 13th June, 1991.

Lepiota hystrix Lange 빨갭집갓버섯(신칭)
Lange, F1.Agar.Dan. 1:26, p1. 10, f. E.1935.

Pileus 4-6cm borad, convex to broad convex, darkish brown, scale of coarse pyramid. Context white, think. Lamellae sinuate, crowdwed, white. Stipe 5-6cm, long, 0.8-1.0cm think, downwards of annulus concolorous with pileus, upwards of it white, hollow white.

Spores 5.0-8.0x3.5-4.0 μ m, elliptical, spore print white, pseudoamy

loid.

Habitat and habitated: Clustered on soils in forests.

Distr.: Mt. Manduck.

Specimens studied: CHO-2558 collected Mt. Manduck on the 1st August, 1991.

Sing Agaricales, 301, 1949.

Agaricus floccipes Fr. Epicr. Myc. 87, 1838.

Entoloma cinchonense (Murr.) Hesler 사초외대버섯(신칭)
Hesler, Nova Hedwigia 23, 36, 1967.

Pileus 2~2.5cm broad, convex, umbilicate, avellaneous, disc fuliginous, dry, margin striate, lobed. Context thin.

Lamellae adnate, pale russet, rather broad, distant. Stipe 3-4cm long, 2.2-2.5mm thick, fumose, slightly tapering upward, cylindrical.

Spores 9.5-11x6.0-7.0 μ m, with six or seven angles, angles obtuse, elliptical in out line. Pleurocystidia and cheilocystidia absent.

Subhymenium not sharply differentiated. Hyphae from lamellae trama subparallel. Cuticle of repent hyphae, with a saccarding few erect or semi-erect hyphae. Pileocystidia absent. Clamp connection and lactifers present.

Habitat and habitated: Solitary on the soil with sedges.

Distr.: Chonju city

Specimens studied: CHO-1034 collected at Inhudong park in Chonju on the 15th July, 1990.

E. hypoporphryum (B. & C.) Hesler 물외대버섯 (신칭)
Hesler, Nova Hedwigia 23, 35, 1967.

Pileus 2.5-3cm broad, depressed, fucous, elongate, glabrous, shining, margin striate. Lamellae livid purple, broad, subdistant to nearely distant. Stipe 4-5cm long, 1.5-2.0mm thick, subfuscous, dilated at the apex.

Spores 8.0-13 x 8.0-11 μ m, subglobose, seldom with one oil drop, hyphae from lamellae trama 5.0-7.0 μ m wide. Pilepellis 13-17x4.5-5.0 μ m, ventricose. Hyphae from pileus trama 30-33x3.0-5.0 μ m, cylindrical.

Pleurocystidia and cheilocystidia absent. Pileus cuticle repent, pileocystidia absent.

Habit and habitat: Solitary on soil of forests.

Distr.: Mt. Balwang.

Specimens studied: CHO-2378 collected at Mt. Balwang(Kangwondo) on the 30th July, 1991.

E. mellum Horak 봉밀외대버섯(신칭)

Horak, Beih. Nova Hedwigia 43:34-35, 1973

Pileus 0.5-1.0cm broad, hemispherical becoming convex to plane, without umbo or central depression, whitish or light beige with faint yellow tinge, innately fibrillose, strongly striate, hygrophanous. Context thin, beige. Lamellae adnate, whitish turning pink, concolorous with pileus, even edge. Stipe 0.6-1.5cm long, 1-1.5mm thick, cylindrical, central, colored like pileus, silky fibrils, dry.

Spores 10(-9.0)-12x7.0(-5.0)-9.0 μ m, mostly with six angles, angles obtuse, subglobose or elliptical in out line, basidia 27.5-35 x 10-11.3 μ m, clavate. Pleurocystidia and cheilocystidia absent. Cuticle a cutis consisting of repent, clamp connection present.

Habit and habitat: Solitary on wood

Distr.: Mt. Manduck.

Specimens studied: CHO-2001 collected at Mt. Manduck on the 13th September, 1989.

要 約

1988년 7월부터 1991년 9월까지 전주와 근교의 만덕산, 위봉사 그리고 내장산 국립공원, 발왕산, 그리고 월출산 국립공원에서 많은 고등균류를 채집하여 동정하였다.

그 결과 한국산 미기록종으로 확인된 것은 다음과 같다. 빨강꽃버섯(*Hygrocybe marchii*), 첫물털애주름버섯(*Hydropus floccipes*), 뽕겹질갯버섯(*Lepiota hystrix*), 사초외대버섯(*Entoloma cinchonense*), 물외대버섯(*E. hypoporphryum*), 그리고 봉밀외대버섯(*E. mellum*)이다.

References

Breitenbach, J. and F. Kranzlin, 1991. Fungi of Switzerland,

- vol. III, Boletes and agarics 1st part.
- Cetto, B. 1987. Enzyklopadie, Band 1-4, Blv verlagsgesellschaft, Munchen Wien Zurich.
- Cho, D.H. and J.Y. Lee, 1994. *Entoloma pinusum* sp. nov. in Korea, p.35, IMC-5.
- Cho, D.H. 1993. Taxonomical Study on the genus *Entoloma* of Korea, *J. Oriental Bot. Res.* 6(2) :125-134.
- Imazeki, R. and T.Hongo, 1987. Colored Illustrations of Mushrooms of Japan, Vol. I. Hoikusha Publishing Co., Ltd.
- Imazeki, R. and T. Hongo, 1989. *ibid.* vol. II.
- Kornerup, A. & J.H. Wanscher, 1989. Methuen Handbook of Color, Methuen.
- Lang, M. & F.B. Hora, 1981, Mushroom. & Toadstools, Collins, London, England.
- Lincoff, G.H., 1981. The Society Field to North America Mushrooms Alfred A. Knof, New York, USA.
- Lincoff, G.H. 1992 Mushroom, Simon & Schuster.
- Marcel, B. 1987. The Mushrooms and Toadstools of British and North Western Europe, Hodder & Stoughton.
- Marcel, B. 1993. Lepiotes, St-Valery-sur-Somme.
- Phillips, R. 1981. Mushrooms and other fungi of greate Britain & Europe. Ward Lock Ltd. U.K.
- Phillips, R. 1991. Mushrooms of North America, Little, Brown and Company.
- 이지열, 1988. 원색 한국버섯도감, 아카데미서적, 서울, 한국.
- 이지열, 조덕현, 1989. 월출산의 균류상, 한국자연보존협회, 27:213-219
- 이지열, 홍순우, 1985. 한국동, 식물도감 제28권, 고등균류(버섯류) 문교부.
- 이태수, 1990. 한국 버섯 총목록, 한국균학지 18(4):223-259.
- 조덕현, 1992. 발왕산 일대의 고등균류, 자연보존협회, 30:141-153.
- 조덕현, 1993. 지리산 일대의 고등균류, 자연보존협회, 31:229-240.
- 조덕현, 1994. 다도해 해상국립공원 금오지구의 균류상, 자연보존협회, 32:139-149.
- 조덕현, 1995. 소백산 일대의 고등균류상, 자연보존협회, 33:237-259.
- 조덕현, 1996, 변산반도 국립공원의 균류상. 자연보존협회, 34:167-193.
- 조덕현, 이정현, 박천희. 1994. 두륜산 일대의 고등균류(94 자연생태계 정밀조사보고서), 환경부(1200-67140-57-9502):237-267
- 조덕현, 박성식, 1990. 가야산 국립공원일대의 고등균류, 한국자연보존 협회, 25:165-173.
- 조덕현, 류천인, 1991. 속리산 일대의 균류상. 한국자연보존협회, 29:237-173.
- 한국균학회, 1978. 한국말 버섯이름통일안, 한국균학지, 2(1):43-55
(접수일:1995년 10월 12일)

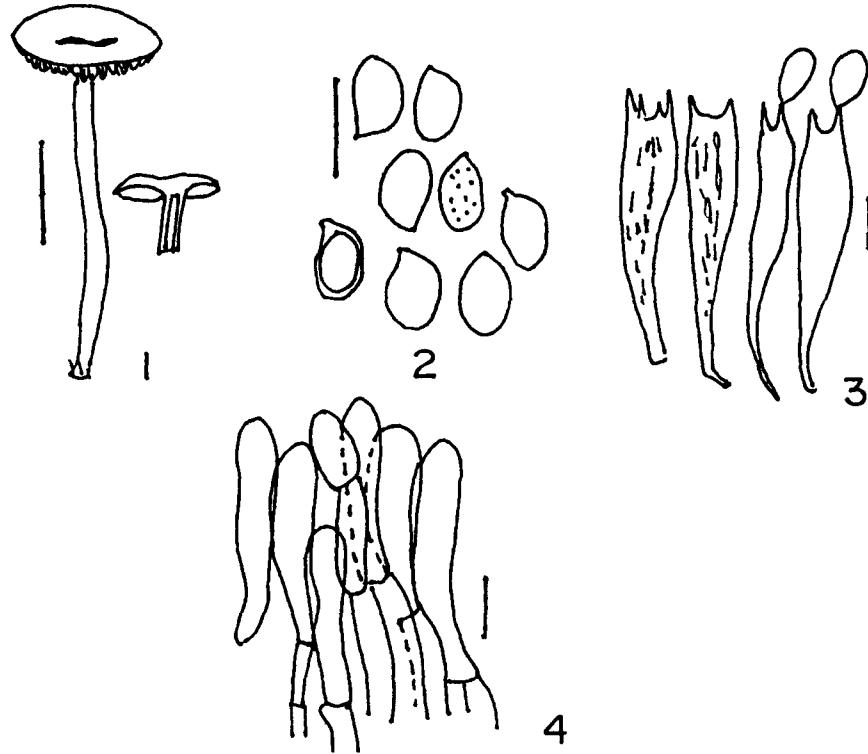


Fig.1. *Hygrocybe marchii*

1. carpophores (bar: 1cm), 2. spores, 3. basidia,
4. hyphae from lamellae trama. (bars of 2, 3, and 4: 10 μ m)

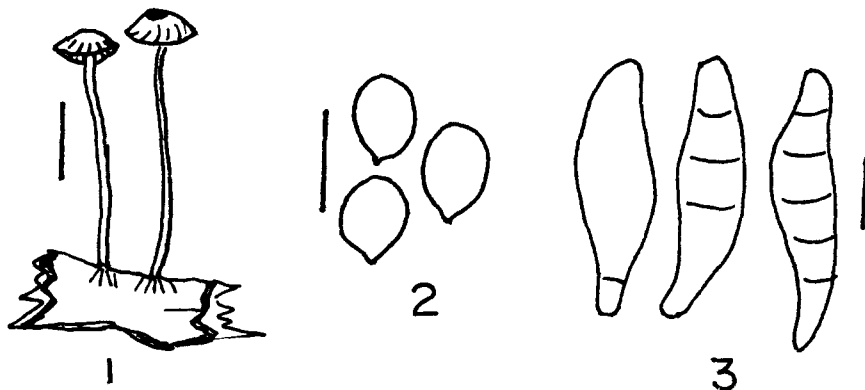


Fig.2. *Hydropus floccipes*

1. carpophores (bar: 1cm), 2. spores,
3. cheilo-pleurocystidia. (bar of 2 and 3: 10 μ m).

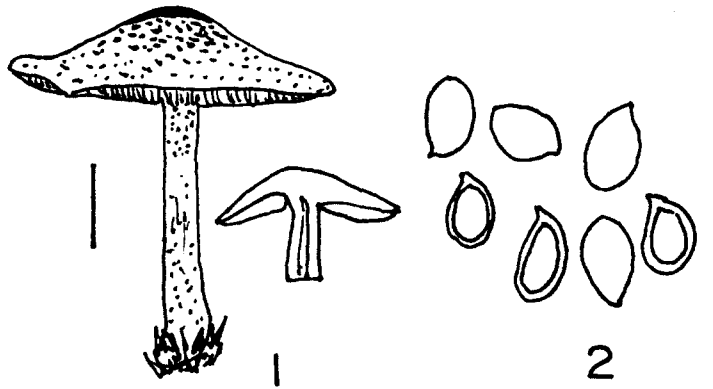


Fig. 3. *Lepiota nysitrix*
 1. carpophores (bar:1cm), 2. spores(bar:10 μ m)

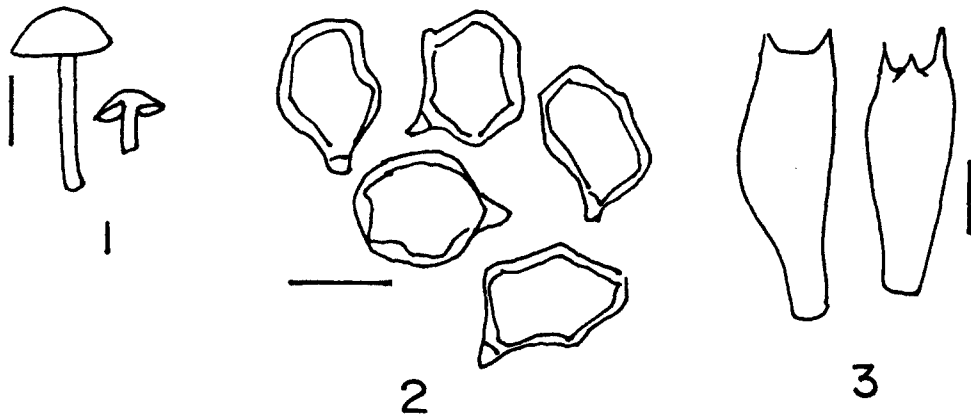


Fig.4. *Entoloma mellum*
 1. carpophores (bar:1cm), 2. spores,
 3. basidia. (bar of 2 and 3:10 μ m).

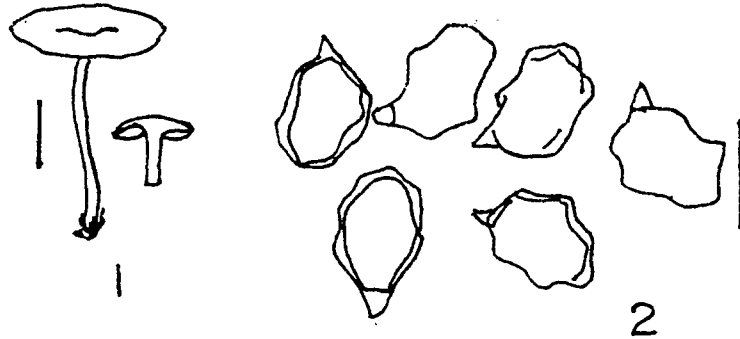


Fig. 5. *E. cinchonense*
 1. carpophores (bar:1cm), 2. spores(bar:10 μ m)

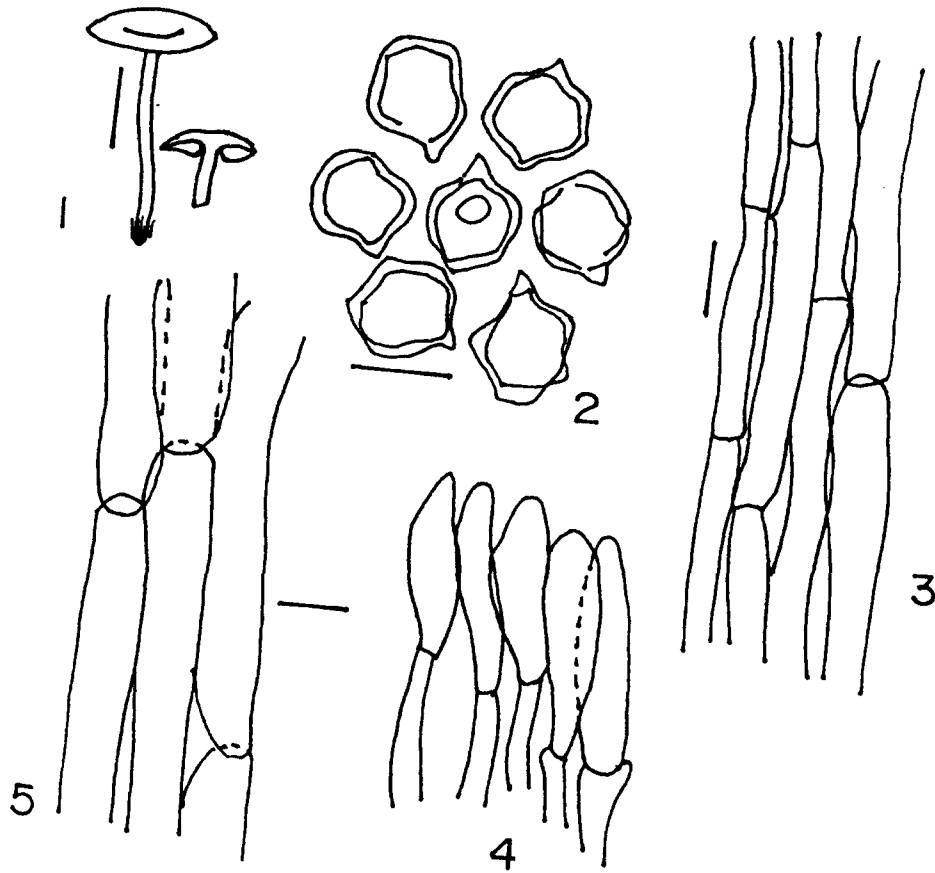


Fig.6. *E. hypoporthryum*

1. carpophores (bar:1cm), 2. spores,3. hyphae from pileus trama,
 4. pileipellis, 5. hyphae from stipe trama. (bar of 2,3,4 and 5:10µm)