

Notes on the Korean Ascomycetes (V)

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韓國產子囊菌類記(V)

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ABSTRACT

Many higher fungi of ascomycetes were collected at Mt.Jiri National Park, Pyonsan Peninsula National Park, Mt.Pangtae of Kangwon-do, Mt.Moak Provincial Park of Chollabuk-do and Mt.Manduck near Chonju city from June 1995 to October 1996. Identification of the revealed that *Calycellina*, *Diatrype* and *Diatrypella* were new genera to Korea and *Scutellinia umbrarum*, *S. pseudoumbarum*, *Dasyscyphus virgineus*, *Calycellina punctiformis*, *Xylaria oxyacanthae*, *Diatrype disciformis*, *Diatrypella quercina* and *D.verrucaeformis* were newly to Korea.

Key words: *Scutellinia umbrarum*, *S. pseudoumbarum*, *Dasyscyphus virgineus*, *Calycellina punctiformis*, *Xylaria oxyacanthae*, *Diatrype disciformis*, *Diatrypella quercina*, *D. verrucaeformis*.

Mt. Jiri National Park is located at the boundary of tri-conjunction in Chollabuk-do, Chollanam-do and Kyungsangnam-do. Particularly it has virgin forests and many valleys which have good conditions for mycological habitations. Untill now, a part on ascomycetes of Mt.Jiri was investigated by Cho(1996a, 1997). Pyonsan Peninsula National Park is located along the seaside of Chollabuk-do and a part of them was investigated by Cho(1995). Mt. Pangtae is located in Kwangwon-do which has good condition for mycological habitations as much as Mt.Jiri. A part of them was investigated by Cho & Kim(1995), Cho & Yoon(1996). Mt. Moak Provincial Park of Chollabuk-do is located between Chonju city and Kumsansa temple in Kinje-kun. Mt.Manduck is located near Chonju city. Also a part on them was investigated by Cho(1996a,1996b).

This time many higher fungi of ascomycetes were collected

at Mt.Jiri, Pyonsan Peninsula Mt.Pangtae, Mt.Moak and Mt.Manduck. They were small but distinctly visible under lupe. These species were described and observed.

This work was made to know the fungal diversity. They are added to the list of Korean fungi.

Scutellinia umbrarum (Fr.) Lambotte

그늘접시버섯(신칭)

Breitenbach & Kranzlin, Fung. Switz. vol.1. 98, 83, 1984.

Fruiting body 3-8 (-10) mm broad, spherical-knoblike when young, and then saucer-shaped, spread out flat. Hymenium dull orange-red, sometimes rather umbilicate. Outer surface and margin thickly ciliate, ciliation darkish brown, bristly, up to 1 mm long. Stipe none on the substrate.

Spores 16-19x11-12 μ m, broadly elliptical, with fine warts,

slightly with ornamentation.

Asci 195-210x12.5-15 μ m, eight-spored, ascospores uniseriate, clavate, seldom forked at base. Paraphyses 190-225x2.5-10 μ m, filiform, forked at the tip. Hair 260-400x19 μ m, brown, thick-walled, often with septa, long clavate, sharp at the apex.

Habitat : Clustered on wet rotten wood or plant debris. Summer to autumn. Rare.

Distribution : Korea (Mt. Jiri) and Europe.

Specimen studied : CHO-4526 (1996.7.17) collected at Pia-kol of Mt. Jiri National Park.

S. pseudoumbarum Moravec

그늘접시버섯아재비(신칭)

Moravec, Ceska Mykologie 25:199, 1971.

Dennis, Brit. Ascomycet. 3, f.32, 1981.

Fruiting body 5-10 mm broad, sessile, discoid, bright red. Margin darkish brown, with short almost black hairs.

Spores 22(-15)-25x12-16 m, with oranametation, broadly elliptical in out line.

Ornamentation massive, obtuse, up to 2 μ m long. Asci 215-250x12.5-17.5 μ m long, clavate, eight-spored, ascospores uniseriate. Paraphyses 150-275x1.5-4 μ m, filiform, forked at the tip, seldom with fine warts.

Habitat : Solitary or in small groups on soil. Summer to autumn.

Distribution : Korea (Pyonsan Peninsula) and Europe.

Specimen studied : CHO-3847(1995.6.28) collected at Pyonsan Peninsula National Park.

Remarks : This scarcely differs from the fungus which has passed as *S. umbrarum* (Fr.)

Lambotte but the real identity of Fries original *Peziza umbrarum* is difficult to decide today.

Dasyscyphus virgineus S.F.Gray

치너털컵버섯(신칭)

Gray, op. cit. : 671, 1821.

Dennis, Brit. Ascomycet. 166, f.4 A, 1981.

Seaver, North Amer. Cup-Fungi. 253-254, 1978.

Fruiting body 0.5-1mm broad, goblet-shaped when young,

finally cup-shaped to plate-shaped in age. Stipe 0.5-1mm long. Hymenium white to cream-colored, smooth, outer surface and margin white, thickly with white hairs. Spores 6-9x1-1.5 μ m, susage-shaped, seldom long fusiform. Asci 42.5-57.5-2.5-3.8 μ m, eight-spored, ascospores irregularly biseriate, clavate. Paraphyses 47.5-62.5x1.3-2.5 μ m, often with septa.

Habitat : Clustered to cespitose on dead branches, twigs and canes. Throughout the year. Common.

Distribution : Korea (Mt. Moak) and Europe.

Specimen studied : CHO-4425 (1996. 6. 15) collected at Mt. Moak Provincial Park of Chollabuk-do.

Calycellina 잔밭침버섯속(신칭)

Apothecia cup-shaped, becoming flattened in some species, sessile or short-stalked.

Ascospores elliptical, somewhat spindle-shaped.

Calycellina punctiformis (Grev.) v.Hohn.

작은잔밭침버섯(신칭)

Breitenbach & Kranzlin, Fung. Switz. vol.1. 98, 83, 1984.

Fruiting body 0.5-1mm broad, irregularly saucer-shaped. Stipe none on the substrate. Hymenium pale to yolk-yellow, with fleck of orange-red, smooth, outer surface lighter to whitish, margin with the fine down. Spores 10-13x2-2.5 μ m, cylindrical, sausage-form. Asci 95-100x7.5-8.3 μ m, ascospores biseriate, clavate. Paraphyses 67.5-107.5x1-2.5 μ m, filiform, with one septum.

Habitat : Solitary to gregarious on damp oak leaves lying on the ground under leaf litter, particularly on leaf veins. Summer to autumn. Wide-spread.

Distribution : Korea (Mt. Pangtae) and Europe.

Specimen studied : CHO-4411 (1996.6.12) collected at Chonju city of Chollabuk-do.

Xylaria oxyacanthae Tul. 열매콩꼬투리버섯(신칭)

Tulasne, Selecta Fungorum Carpologia 2:15,1863

Dennis, Brit. Ascomycet. 320, 1981.

Fruiting body 2-5(-10)cm high, 1-3mm thick, irregularly compressed, filiform, slightly sinuous, whitish, brownish-

black at the base, conical, perithecia embedded.

Spores 6-7x2.5-3 μ m, fusiform, with germ tube, dark. Asci 110-130x8-10 μ m, long clavate, ascospores irregularly biseriolate. Paraphyses 115-140x1-2 μ m, filiform. Hyphae 3.8-6.3 μ m wide, thick-walled.

Habitat : Clustered on buried fruit of *Crataegus*. Spring to summer.

Distribution : Korea (Mt. Jiri and Mt. Manduck) and Europe.

Specimen studied : CHO-4500 (1996.7.10) collected at the Natural School of Kyungsangnam-do of Mt. Jiri National Park.

Remark : This species is characterized by its habitation on fruits.

***Diatrype* Fr. 요버섯속(신칭)**

Stroma cushion-shaped, discoid or forming widespread crust, erumpent from beneath bark of dead branches. Asci small, clavate, stalked, eight-spored, ascospores sausage-shaped.

***Diatrype disciformis* (Hoff. : Fr.) Fr.**

접시요버섯(신칭)

Fries, op. cit.:385, 1849.

Dennis, Brit. Ascomycet. 336, f.27 G, 1981.

Breitenbach & Kranzlin, Fung. Switz. vol.1. 280, f.357, 1984.

Fruiting body up to 3mm broad, cushion-like, elliptical, circular, flat at top, at first whitish dotted with the black ostioles, emergent from the bark. Perithecia 0.2-0.4mm broad, brownish dark, one or two layers.

Spores 5.5-7x1.5-2 μ m, sausage-shaped, slightly brown in the cluster, smooth. Asci 30-40x5 μ m, clavate, with long slender stalks, with apical ring. eight-spored, ascospores irregularly biseriolate. Paraphyses not observed.

Habitat : Solitary or clustered on dead branches of *Fagus*(beech), rarely on other broadleaved trees. Winter to spring. Common.

Distribution : Korea (Mt. Jiri) and Europe.

Specimen studied : CHO-4380 (1996.5.10) collected at Whaom-sa of Mt. Jiri National Park.

Remark : Dennis reported that spores were 5-8x2 μ m and Breitenbach & Kranzlin spores 7-9x1.5-2 μ m.

***Diatrypella* (Ces.& de Not.) Cooke**

쇠요버섯속(신칭)

Differs from *Diatrype* in the many-spored asci.

***Diatrypella quercina* (Pers.: Fr) Cke.**

참나무쇠요버섯(신칭)

Cooke, J. Bot. 4:99, 1866.

Dennis, Brit. Ascomycet. 337, f.13 E, 1981.

Breitenbach & Kranzlin, Fung. Switz. vol.1. 282, f.359, 1984.

Fruiting body 2-3mm across, rounded cushionlike, superficially black, whitish to light brownish, emergent from the bark when mature. The surface rough, furrowed, with barely visible perithecial ostioles. Perithecia 0.4-0.6mm broad, dark, embedded in one layer.

Spores 7-8x 2-2.5 μ m, sausage-shaped, smooth, light brown. Asci 130-143 x 17.5-x22.5 μ m, sack-shaped, ascospores multi-spored. Paraphyses 1.5-2 μ m wide, filiform, forked at the tip.

Hyphae 7.9-8.6x3.6-4.3 μ m, cylindrical, wall-thickened, with septa.

Habitat : Cespitose or often covered whole branches on dead branches, with bark of *Quercus* (oak). Winter to spring. Widespread.

Distribution : Korea (Mt. Moak) and Europe.

Specimen studied : CHO-4363 (1996.5.5) collected between Suwang-sa and Chungin-ri of Mt. Moak Provincial Park.

***D. verrucaeformis* (Ehr.) Nke.**

사마귀쇠요버섯(신칭)

Breitenbach & Kranzlin, 1984. Fung. Swit. vol.1. 282, f.360, 1984.

Fruiting body 0.4-0.6mm broad, dark, embedded in two layer. Stroma superficially brown-black, whitish within. The rounded, angular, elongate, cushionlike to conical stroma emergent from the bark when mature, surrounded by split lobes of the surface of the bark. The surface warty,

with barely visible perithecial ostioles.

Spores 7-9.5x1.5-2.5 μ m, sausage-form, light brownish, smooth. Asci 150-16-x9-12 μ m, clavate, ascospores multi-spored, seldom with apical ring. Paraphyses not observed.

Habitat : Cespitose, often covered entire branches on dead branches, trunks of various broadleaved trees of *Alnus* (alder), *Corylus* (hazel), and *Fagus* (beech). Winter to spring. Widespread.

Distribution : Korea (Mt.Moak) and Europe.

Specimen studied : CHO-4362 (1995. 5. 5) collected between Chungin-ri and Suwang-sa of Mt.Moak Chonlabuk-do Provincial Park.

Remarks : The species described here corresponds in habitus to a Diatrype, although it is rather variable in form, but it is well characterized by the many-spored asci.

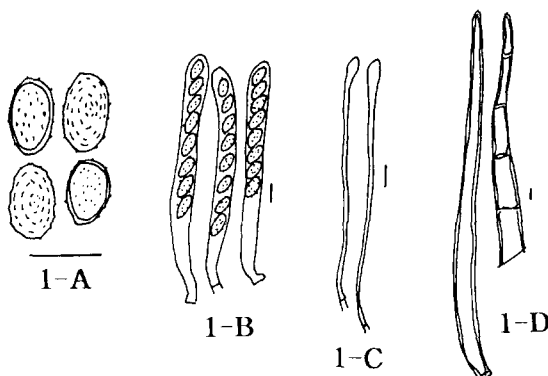
적 요

1995년 6월부터 1996년 10월까지 지리산국립공원, 변산반도국립공원, 강원도의 방태산 전라북도의 모악산도립공원, 만덕산에서 많은 자낭균류를 채집하였다. 이것들을 동정한 결과 잔받침버섯속 (*Calycellina*), 요버섯속 (*Diatrype*), 쇠요버섯속 (*Diatrypella*)은 한국미기록속으로 확인되었다. 그리고 그늘접시버섯 (*Scutellinia umbrarum*), 그늘접시버섯아재비 (*S. pseudoumbarum*), 처녀털컵버섯 (*Dasyscyphus virgineus*), 작은잔받침버섯 (*Calycellina punctiformis*), 열매콩꼬투리버섯 (*Xylaria oxyacanthae*), 접시요버섯 (*Diatrype disciformis*), 참나무 쇠요버섯 (*Diatrypella quercina*) 그

리고 사마귀쇠요버섯 (*D. verrucaeformis*)은 한국 미기록 종으로 확인되었다. 이들 한국미기록속과 미기록 종에 대하여 한국 보통명을 신칭하였다.

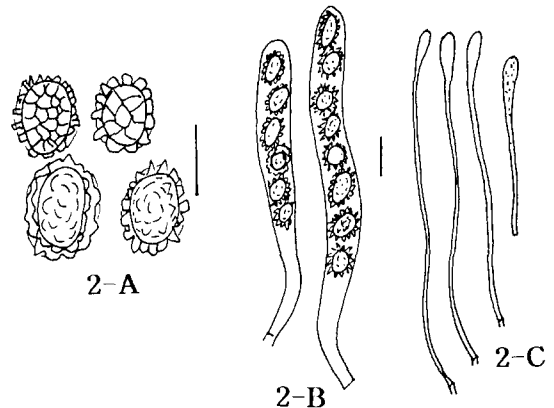
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1. *Scutellinia umbrarum*

1-A, Spores. 1-B, Asci. 1-C, Paraphyses. 1-D, Hair. (bars:10 μ m)



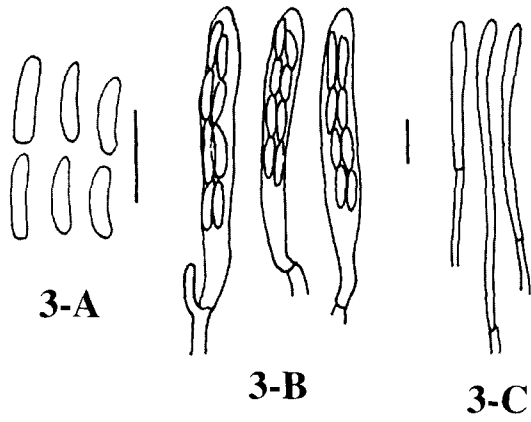
2. *S. pseudoumbarum*

2-A, Spores. 2-B, Asci. 2-C, Paraphyses (bars:10 μ m)

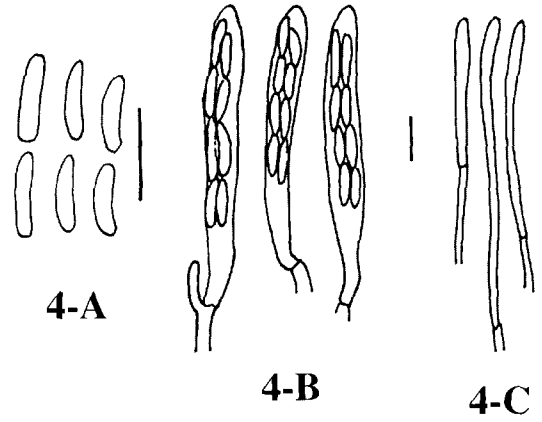


The Explanation of Plate

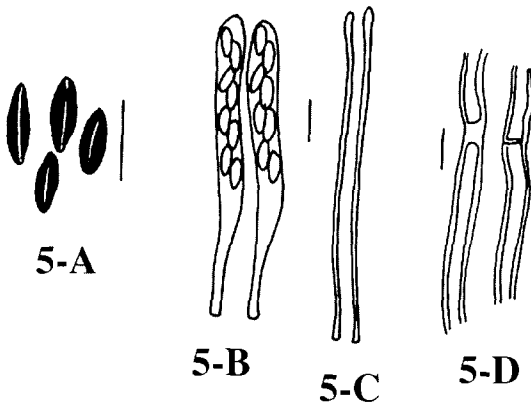
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|---------------------------------|------------------------------------|
| 1. <i>Scutellinia umbrarum</i> | 2. <i>S. pseudoumbarum</i> |
| 3. <i>Dasyscyphus virgineus</i> | 4. <i>Calycellina punctiformis</i> |
| 5. <i>Xylaria oxyacanthae</i> | 6. <i>Diatrype disciformis</i> |
| 7. <i>Diatrypella quercina</i> | 8. <i>D. verrucaeformis</i> |



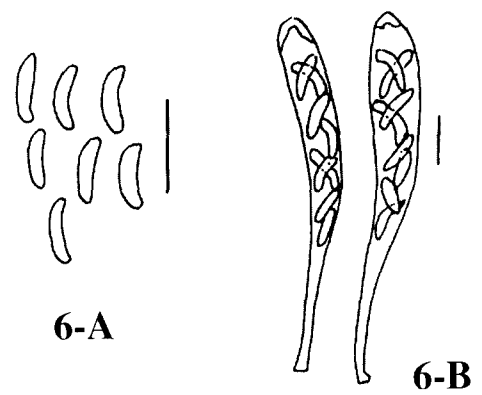
3. *Dasyscyphus virgineus*
3-A, Spores. 3-B, Asci. 3-C, Paraphyses. (bars:10 μ m)



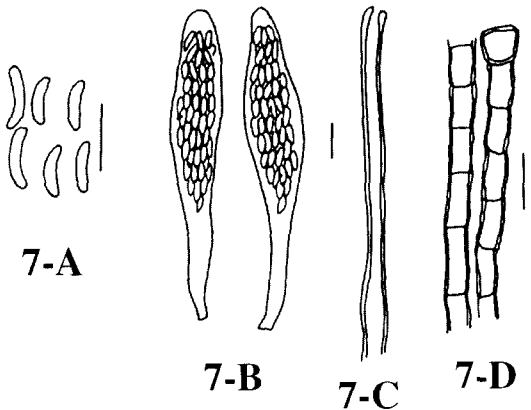
4. *Calycellina punctiformis*
4-A, Spores. 4-B, Asci. 4-C, Paraphyses. (bars:10 μ m)



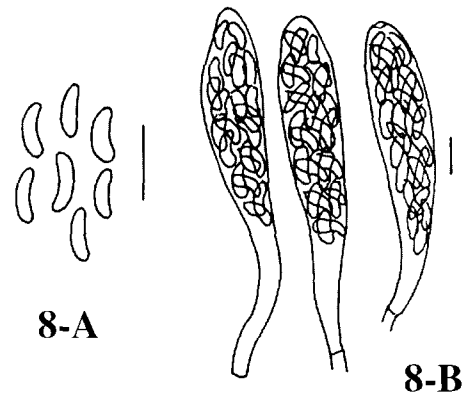
5. *Xylaria oxyacanthae*
5-A, Spores. 5-B, Asci. 5-C, Paraphyses, 5-D, Hyphae. (bars:10 μ m)



6. *Diatrype disciformis*
6-A, Spores. 6-B, Asci. (bars:10 μ m)



7. *Diatrypella quercina*
7-A, Spores. 7-B, Asci. 7-C, Paraphyses. 7-D, Hair. (bars:10 μ m)



8. *D. verrucaeformis*
8-A, Spores. 8-B, Asci. (bars:10 μ m)