

Notes on Unrecorded Fleшы Ascomycetes in Korea

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韓國産 子囊菌類 버섯의 未記錄種

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ABSTRACT: More than 100 samples of the Ascomycetous fleshy fungi were collected and investigated. Among them, 3 genera and 9 species were confirmed as unrecorded ones in Korea. Unrecorded genera were *Tarzetta*, *Hypocrea* and *Mollisia*. Unrecorded species were *Cyathipodia villosa*, *C. cupuliformis*, *Cudonia confusa*, *Tarzetta catinus*, *T. cupularis*, *Rutsroemia petiolorum*, *Mollisia ventosa*, *Hymenoscyphus pileatus* and *Hypocrea rufa*.

KEYWORDS: Ascus, Ascospore, Stipe, Paraphyse, Stroma.

Studies on fleshy Ascomycetes had never been done systematically. And, there were less recorded species than Basidiomycetes in Korea. This was caused by the poor distribution of these fungi and the environmental conditions which were necessary for their growth. The authors recorded 6 *Cordyceps* species previously (Jang and Hong, 1986). In this report, unrecorded fleshy Ascomycetes except *Cordyceps* are recorded.

Unrecorded genera

Tarzetta (Cooke) Lambotte 땅주발버섯 속

Tarzetta (Cooke) Lambotte in Mem. Soc. roy. Sci. Liege, Ser. 2, 14:325(1888); (= *Pustularia* Fuckel) in Jahrb. Nass. Vereins f. Naturkunde 23/24: 328(1870); Dennis, British Ascomycetes: 29(1981); Breitenbach and Kränzlin, Fungi of Switzerland Vol. 1 Ascomycetes: 84(1984)

Type species: *T. rapulum* (Bull.) Cooke

Mollisia (Fries) Karsten 살갓버섯 속

Mollisia (Fries) Karsten, Mycologia Fennica 1: 15(1871); Dennis, Kew. Bull. 15:293(1961); Dennis, Persoonia 3(1):29(1963); Graddon, Trans. Br. mycol. Soc. 69(2):255(1977); Graddon, Trans. Br. mycol. Soc. 73(1):180(1979); Dennis, British Ascomycetes 205(1981); Breitenbach and Kränzlin, Fungi of Swit-

zerland Vol. 1 Ascomycetes:224(1984)

Type species: *M. cinerea* (Batsch) Karsten

Hypocrea Fries 짐버섯 속

Hypocrea Fries, Systema orbis Vegetabilis 1: 104(1825); Dennis, British Ascomycetes:261(1981); Breitenbach and Kränzlin, Fungi of Switzerland Vol. 1 Ascomycetes:254(1984)

Type species: *H. rufa* (Persoon ex Fries) Fries

Unrecorded Species

Cyathipodia cupuliformis (Dissing & Nannfeldt) comb. nov. 노란긴대주발버섯 (p1. 2,D)

Cyathipodia cupuliformis (Dissing & Nannfeldt) comb. nov. (= *Hevella cupuliformis* Dissing & Nannfeldt), Sv. Bot. Tidskr. 60:326(1966); Breitenbach and Kränzlin, Fungi of Switzerland Vol. 1 Ascomycetes:58(1984)

Fruit bodies 1.5-3cm wide with smooth yellow-brownish hymenium. Stalk cylindrical but with slight furrow. Stalk whiter or creamy. Spores clear with a large oil drop, 18-21 X 12-13.5 μ m. Asci 300-350 X 17-20 μ m. Paraphyses broad at the tip up to 7 μ m.

Habitat: on sandy soil

Distribution: Kwangnung

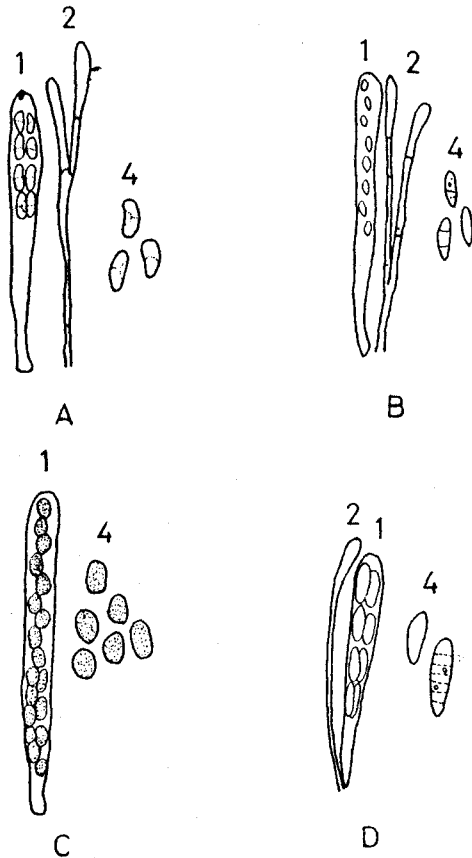


Plate 1. Microscopic structures of A. *Rutsroemia petiolorum*; B. *Mollisia ventosa*; C. *Hypocrea rufa*; D. *Hymenoscyphus pileatus*; Scale: A.B.D. 20 μ m; C. 10 μ m/cm

***Cyathipodia villosa* (Hedwig ex O. Kuntze) Boudier** 솜털긴대주발버섯 (p1. 2, c)

Cyathipodia villosa (Hedwig ex O. Kuntze) Boudier, Hist. Class. Discom. d'Europe:39(1907); Dennis, British Ascomycetes:11(1981); Breitenbach and Kranzlin, Fungi of Switzerland Vol. 1 Ascomycetes:58(1984)

Fruit bodies up to 6cm tall, head cup-shaped, sometimes becoming flattened and lobed with age, outer surface concolorous, hairy, base white. Asci 250 X 14 μ m. Ascospores 17-21 X 9-12.5 μ m.

Habitat: on soil in deciduous woods

Distribution: Kwangnung

***Tarzetta catinus* (Holmskjöld ex Fries) Korf & J. K. Rogers** 갈색땅주발버섯 (p1. 2, A)

Tarzetta catinus (Holmskjöld ex Fries) Korf & J.

K. Rogers in Phytologia 21:206(1971); Dennis, British Ascomycetes:30(1981); Breitenbach and Kränzlin, Fungi of Switzerland Vol. 1 Ascomycetes:34(1984)

Apothecia solitary or in clusters, 2-5 cm wide, cream to pale ochraceous, cup-shaped with a somewhat crenate margin, downy externally with short hyaline hairs. Cups sessile with a short stout stalk. Asci about 350 X 20 μ m. Spores elliptical, 20-24 X 11-13 μ m, with two large oil drops. Paraphyses slender, septate, often branched below, tips not clavate but often lobed, 3-4 μ m wide.

Habitat: in woods, especially of *Fagus*

Distribution: Paekunsan

***Tarzetta cupularis* (Linnaeus ex Fries) Lambotte** 오목땅주발버섯 (p1. 2, B)

Tarzetta cupularis (Linnaeus ex Fries) Lambotte in Mem. Soc. roy. Sci. Liege, Ser. 2, 14:325(1888); Dennis, British Ascomycetes:30(1981); Breitenbach and Kränzlin, Fungi of Switzerland Vol. 1 Ascomycetes:86(1984)

Apothecia usually less than 2cm wide, gregarious, sessile, cup-shaped with a crenate margin, grayish-ochraceous, the exterior minutely downy. Asci about 300 X 15 μ m. Spores 19-21 X 13-15 μ m, broadly elliptical, with two large oil drops. Paraphyses slender, septate, colorless, slightly enlarged upwards.

Habitat: damp places in woods

Distribution: Odaesan

***Cudonia confusa* Bresadola** 갈색투구버섯 (p1. 2, E)

Cudonia confusa Bresadola, Fungi Tridentini 2: 67(1892); Dennis, British Ascomycetes:100(1981)

Fruit bodies most in small clusters. Fertile head thin, convex and recurved. Asci up to 150 X 10 μ m, 8-spored, pore not blued by iodine. Ascospores lying parallel in the ascus, cylindric-clavate, 30-45 X 2 μ m. Paraphyses curled at the tip. Differs in having the stalk concolorous with the head from *C. circinans*.

Habitat: on the ground in woods

Distribution: Kwangnung

***Rutsroemia petiolorum* (Roberge) White** 작은 잎맥버섯 (p1. 1, A)

Rutsroemia petiolorum (Roberge) White, Lloydia 4:197(1941); Dennis, British Ascomycetes:112(1981); Breitenbach and Kranzlin, Fungi of Switzerland Vol.1 Ascomycetes:146(1984)

Fruit body solitary, erumpent from petioles or main veins of fallen leaves. Disc 2-3mm, yellowish-brown. Asci 8-spored, the pore blued by iodine. Ascospores long and kidney-shaped, $14-17 \times 4.5-5.5 \mu\text{m}$, sometimes becoming septate.

Habitat: on fallen leaves of *Fagus* and *Quercus*

Distribution: Kwangnŭng

***Hymenoscyphus pileatus* (Karsten) O. Kuntze**
노란상수리술잔고무버섯 (pl. 1, D & 3, 1)

Hymenoscyphus pileatus (Karsten) O. Kuntze, Rev. Gen. Plants 3(2):485(1898); (= *Ombrophila helotioides* Phillips) in Grevillea 16:94(1888); Dennis, British Ascomycetes:135(1981)

Apothecia cream colored up to 2mm diameter, seated on a long slender stalk, smooth, white, soft and flexible but not gelatinised. Asci cylindrical-clavate, $70-95 \times 7-9 \mu\text{m}$, 8-spored, pore blued by iodine. Ascospores long fusiform, straight or slightly curved, $16-30 \times 2.5-4 \mu\text{m}$, hyaline. Paraphyses

slender, obtuse.

Habitat: in swampy places

Distribution: Kwangnŭng

***Mollisia ventosa* (Karsten) Karsten** 연한살갓버섯 (pl. 1, B)

Mollisia ventosa (Karsten) Karsten, Mycologia Fennica 188:15(1871); Dennis, British Ascomycetes 206(1981); Breitenbach and Kränzlin, Fungi of Switzerland Vol. 1 Ascomycetes:230(1984).

Apothecia saucer-shaped, after irregularly lobed, smooth, yellowish-gray, up to 2mm across. Asci cylindrical-clavate, with long stalks, up to $120 \times 7 \mu\text{m}$, 8-spored, the pore blued by iodine. Ascospores largely uniseriate, fusiform, straight or slightly curved, $10-20 \times 2-3.5 \mu\text{m}$, 1-septate. Paraphyses slender, about $1 \mu\text{m}$ thick.

Habitat: on rotting decorticated wood

Distribution: Kwangnŭng

***Hypocrea rufa* (Persoon ex Fries) Fries** 점버섯 (pl. 1, C)

Hypocrea rufa (Persoon ex Fries) Fries, Summa Veg. Scand. Sect. Post.:383(1849); Dennis, Ascomycetes:262(1981); Breitenbach and Kränzlin, Fungi of Switzerland Vol. 1 Ascomycetes:256(1984)

Stroma usually convex or cushion-shaped, up to 10mm across, light reddish-brown all over, smooth, minutely dotted with the ostioles. Asci narrowly cylindrical, about $75 \times 5 \mu\text{m}$, ultimately 16-spored. Part-spores globose or broadly elliptical, $3.5-6 \times 3.5-4.5 \mu\text{m}$, minutely punctate.

Habitat: on dead wood, bark

Distribution: Kwangnŭng

摘 要

자낭균류에 속하는 100여 개체의 버섯표본을 관찰한 결과 3속 9종의 미기록 속과 종이 동정되었기에 보고하는 바이다. 미기록 속은 땅주발버섯 속 (*Tarzetta*), 살갓버섯 속 (*Mollisia*), 점버섯 속 (*Hypocrea*) 등이다. 미기록 종은 노란긴대주발버섯 (*Cyathipodia cupuliformis*), 솜털긴대주발버섯 (*Cyathipodia villosa*), 갈색땅주발버섯 (*Tarzetta catinus*), 오목땅주발버섯 (*Tarzetta cupularis*), 갈색투구버섯 (*Cudonia confusa*), 작은잎맥버섯 (*Rutstroemia petiolorum*), 노란상수리술잔고무버섯 (*Hymenoscyphus pileatus*), 연한살갓버섯 (*Mollisia ventosa*), 점버섯 (*Hypocrea rufa*) 등이다.

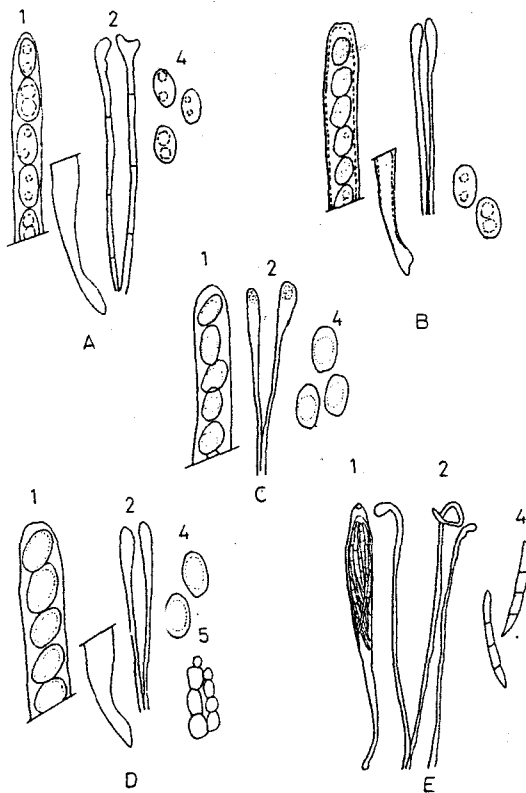


Plate 2. Microscopic structures of A. *Tarzetta catinus*; B. *Tarzetta cupularis*; C. *Cyathipodia villosa*; D. *Cyathipodia cupuliformis*; E. *Cudonia confusa* Scale: A.B.C.D.E. 20

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