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Taxonomic Study on Korean Aphyllophorales (I)
—on some unrecorded genera and species—

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한국산 민주름버섯목의 분류학적 연구 (I)
—수종 미기록속과 종에 대하여—

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ABSTRACT: Fresh fungi were collected during field trips to mountain areas throughout the country from May to October of 1994. Through the observation and identification of specimens belonging to the Aphyllophorales, two genera, *Botryohypochnus* and *Vesiculomyces*, and seven species, *Botryohypochnus isabellinus, Phanerochaete laevis, Vesiculomyces citrinus, Gloeoporus pannocinctus, Junghuhnia luteoalba, Inonotus andersonii,* and *Inonotus hispidus*, were confirmed new to Korea and are registered here with descriptions.

KEYWORDS: Taxonomic study, unrecorded fungi, Aphyllophorales

Wood-rotting fungi living on hardwoods and conifers were collected during eleven field trips to eleven mountain areas throughout the country from the beginning of May to the end of October in the year 1994. A total of 290 specimens were collected and identified according to recent classification systems through the observation of morphological and microscopic fruitbody characters. For the observation of specimens, laboratory techniques of Largent *et al.* (1977) and microscopic methods of Jung (1987) were employed.

Total identified fungi belonging to the wood-rotting members of the Aphyllophorales amounted to 7 families, 42 genera, and 57 species, and the rest of the fungi were reserved for later works. Among identified taxa, two genera, *Botryohypochnus* and *Vesiculomyces* of the Corticiaceae, were confirmed as unrecorded ones. And seven species, *Botryohypochnus isabellinus, Phanerochaete laevis,* and *Vesiculomyces citrinus* of the Corticiaceae, *Gloeoporus pannocinctus* and *Junghuhnia luteoalba* of the Polyporaceae, *Inonotus andersonii* and *Inonotus hispidus* of the Hymenomycetaceae, were confirmed new to Korea and are registered here with Korean names and English descriptions.

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Taxonomy

For the taxonomy of identified taxa, the concept of Donk (1964) was used for the whole order, and the system of Eriksson *et al.* (1958, 1973-1984) was followed for the corticioid fungi and the classification of Gilbertson and Ryvarden (1986-1987, 1993-1994) was employed for polyporoid and hymenochaetaceous fungi. The colored illustrations of Breitenbach and Kränzlin (1986), Imazeki and Hongo (1965, 1989), and Imazeki *et al.* (1988) and the literature of Ito (1955) were very useful for

the detailed identification and descriptions of specimens and were frequently consulted for confirmation.

Jung (1994) recently reported the fungal flora of Korean wood-rotting fungi based on the specimens collected from 15 national parks, 7 local areas, and 2 islands for two years from the spring of 1990. In the report, he listed 217 species and 1 variety for the studied fungal flora, and now including the unrecorded species counted here, total confirmed wood-rotting fungi of the Korean Aphyllophorales amount to 17 families, 100 genera, 224 species, and 1 variety.

Corticiaceae 고약버섯과

***Botryohypochnus* Donk, Meded. Nederl. mycol. vereen. 18-20: 118, 1931 (융단고약버섯속, 新稱)**

Fruitbody annual, hypochnoid, loose; hyphal system monomitic, hyphae broad, simple-septate, branched at right angles; basidia broadly clavate to subcylindrical, with 4 sterigmata; basidiospores globose, echinulate, not amyloid.

Type species : *Botryohypochnus isabellinus* (Fr.) J. Erikss.

Remarks : This genus is very close to *Botryobasidium* (담자고약버섯속) of the Corticiaceae and agrees in many characters of appearance, hyphae, and basidia each other, but has the morphology of spores found in the species of *Tomentella* (융단버섯속) of the Thelephoraceae.

1. *Botryohypochnus isabellinus* (Fr.) J. Erikss., Sv. bot. tidskr. 52: 2, 1958 (융단고약버섯, 新稱)

Fruitbody hypochnoid, loosely matted, at first whitish, then yellowish to ochraceous on drying.

Hyphal system monomitic, hyphae 5~11 μm wide, thin-walled, simple-septate, loosely interwoven, infrequently branched at right angles; basidia 15~20×8~9 μm, broadly clavate to subcylindrical, with 4 stout sterigmata; basidiospores 7~8.5 μm in diameter, globose to subglobose, echinulate, distinctly apiculate, pale ochraceous, cyanophilous.

Habitat : on well-decayed wood and bark of a dead hardwood trunk.

Remarks : This corticioid fungus has a somewhat inconspicuous fruitbody and occurs on decayed wood of both conifers and hardwoods (Eriksson and Ryvarden, 1973) and seems to be an uncommon species in Korea.

Specimens : along the mountain ridge trail to Jijang-bong, Gwanin-myeon, Pochun-gun, Gyunggi-do, SNU 940730-14.

***Phanerochaete* Karst., Krit. Öfvers. Finl. Basidsv. p. 426, 1893. (유색고약버섯속)**

Fruitbody annual, resupinate, usually soft when fresh, membranous when dry, more or less detachable, vivid and various in color; hymenial surface smooth or tuberculate; margin fimbriate, fringy, or sometimes rhizomorphic; hyphal system monomitic, hyphae distinct, subhymenial hyphae simple-septate, thin-walled, richly branched, intertwined, subicular hyphae occasionally nodose-septate, thick-walled, infrequently branched, and straight; cystidia usually conspicuous and numerous, varying in shape and nature; basidia narrowly clavate, with 4 sterigmata; basidiospores narrowly ellipsoid to allantoid, smooth, not amyloid.

Type species : *Corticium decolorans* Karst.= *Phanerochaete velutina* (Fr.) Karst.

Remarks : The species of *Phanerochaete* are easily recognized by their common bright color of fruitbodies, frequent to numerous conspicuous cystidia, and thick-walled subicular hyphae with occasional conspicuous clamps.

2. *Phanerochaete laevis* (Fr.) Erikss. et Ryv., Cort. N. Europe 5: 1007, 1978 (균열유색고약버섯, 新稱)

Fruitbody resupinate, effused, confluent, membranous, adnate, thin, less than 0.5 mm thick; hymenial surface pink ochraceous to slightly orange ochraceous, turning dark red in KOH, somewhat tuberculate when fresh, becoming smooth on drying; margin lighter in color, fringed with whitish rhizomorphs.

Hyphal system monomitic, hyphae 2~4 μm wide, subhymenial hyphae simple-septate, thin-walled, richly and irregularly branched, densely intertwined, subicular hyphae sometimes nodose-septate, somewhat thick-walled, infrequently branched, straight and horizontally arranged; cystidia 40~60×5~7.5 μm, numerous, narrowly cylindri-

cal, becoming encrusted and somewhat thick-walled with age, enclosed or slightly projecting; basidia 25×4~5 μm, narrowly clavate, with 4 sterigmata; basidiospores 4~5×2~2.5 μm, narrowly ellipsoid, with oil drops.

Habitat : on decayed wood and bark of a fallen twig of *Juniperus chinensis*.

Remarks : This fungus usually occurs on hardwoods (Breitenbach and Kränzlin, 1986) but the specimen was found on *Juniperus* and must be an uncommon species. It has a great variation in color and margin but the microscopic characters like the shape and number of cystidia and the nature of hyphae are so unique that they work as good indicators of the species.

Specimens : in the woods by the cafeteria of the College of Education, Seoul National University, Gwanak Mountain, Gwanak-gu, Seoul, SNU 940712-3-1.

***Vesiculomyces* Hagström, Bot. Notiser 130: 53, 1977 (레몬고약버섯속, 新稱)**

Fruitbody annual, resupinate, soft when fresh, membranous when dry, adnate; hymenial surface smooth; margin fimbriate; hyphal system monomitic, hyphae simple-septate, thin-walled, richly branched; gloeocystidia vesicular to fusiform, negative to sulphobenzaldehyde; basidia narrowly clavate, usually with 4 sterigmata; basidiospores globose to subglobose, smooth, amyloid.

Type species : *Vesiculomyces citrinus* (Pers.) Hagström.

Remarks : The present genus used to be included in the genus *Gloeocystidiellum* but was segregated from the latter genus due to characteristic vesicular gloeocystidia in which there are no granular contents and always give negative reaction to sulphobenzaldehyde.

3. *Vesiculomyces citrinus* (Pers.) Hagström, Bot. Notiser 130: 53, 1977 (레몬고약버섯, 新稱)

Fruitbody resupinate, effused, initially orbicular, soon confluent, subceraceous when fresh, membranous when dry, adnate, thin, less than 0.3 mm thick; hymenial surface bright in color, yellowish white to light yellow, smooth; margin lighter in color or whitish, fimbriate or somewhat inconspicuous.

Hyphal system monomitic, hyphae 2~3 μm wide, simple-septate, thin-walled, richly branched and densely interwoven in the subhymenium; gloeocystidia 50~65×9~13 μm, numerous and crowded, vesicular, becoming narrowly fusiform, thin-walled, hyaline, negative to sulphobenzaldehyde; basidia 25~30×5~6.5 μm, narrowly clavate, usually with 4 sterigmata; basidiospores 4.5~6×4~5 μm, globose to subglobose, with an apiculus, smooth, amyloid.

Habitat : on completely rotten wood of a dead *Acer* trunk.

Remarks : The bright color and fimbriate margin of the fruitbody and the particular gloeocystidia of vesicular structure make this fungus an easy one. Its major host is conifers but the present specimen was found on a hardwood of *Acer* species.

Specimens : by the trail between Daecheongbong and Seolak Fall, Seolak Mountain, Seo-myeon, Yangyang-gun, Gangwon-do, SNU 940903-16-1.

Polyporaceae 구멍장이버섯과

***Gloeoporus* Mont., Ann, Sci. Nat. Bot. Ser. 2, 17: 126, 1842 (무른구멍장이버섯속)**

Fruitbody annual, resupinate to pileate, soft when fresh, hard when dry; pilei small to medium, solitary to imbricate; upper surface tomentose, often glabrescent; margin acute; hymenophore poroid, pores small and shallow, circular to angular, pinkish, orange, reddish brown, to brownish gray; context white; hyphal system monomitic, hyphae simple-septate or nodose-septate; cystidia present or absent; basidia clavate, with 4 sterigmata; basidiospores allantoid to cylindrical, smooth, not amyloid.

Type species : *Gloeoporus thelephoroides* (Hook.) A.H. Cunn.

Remarks : This genus is sometimes placed in the Corticiaceae or Meruliaceae due to its merulioid hymenophores found in *Byssomerulius, Merulius* (아교버섯속), and other related fungi (Gilbertson and Ryvarden, 1986), but its distinct po-

roid hymenophore has been keeping the present genus in a polyporoid flora.

4. *Gloeoporus pannocinctus* (Romell) Erikss., Symb. bot. Upsal. 16: 1, 1958 (검무른구멍장이버섯, 新稱)

Fruitbody resupinate, effused, soft when fresh, corneous hard when dry, adnate, 1~3 mm thick; hymenophore poroid, pores small and shallow, 5~7/mm, circular to angular, whitish when young, becoming ochraceous gray to brownish gray; margin sterile, whitish to cream, abrupt; subiculum whitish, up to 2 mm thick, distinguished from the

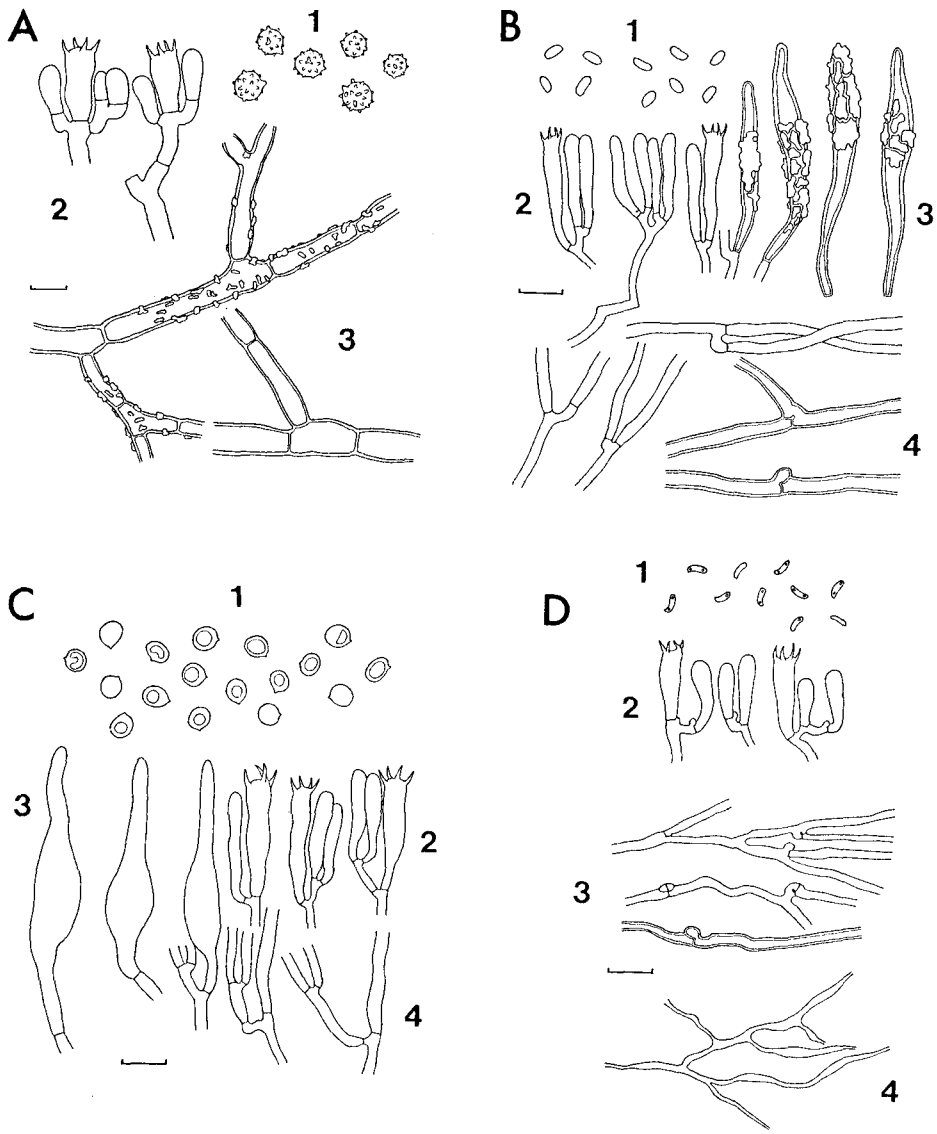

Plate 1. Microscopic structures of unrecorded fungi of the Aphyllophorales (bars=10 μm)
A. *Botryohypochnus isabellinus*: 1) basidiospores, 2) basidia, 3) hyphae
B. *Phanerochaete laevis*: 1) basidiospores, 2) basidia, 3) cystidia, 4) hyphae
C. *Vesiculomyces citrinus*: 1) basidiospores, 2) basidia, 3) gloeocystidia, 4) hyphae
D. *Gloeoporus pannocinctus*: 1) basidiospores, 2) basidia, 3) subicular hyphae, 4) hyphae in dissepiments

pore layer by a dark thin gelatinous layer.

Hyphal system monomitic, hyphae 2~3 μm wide, nodose-septate, thin-walled, richly branched and densely interwoven in the subiculum, compactly anastomosed in a gelatinous substance in dissepiments; cystidia none; basidia 15~18×4~5 μm, clavate, with 4 sterigmata; basidiospores 4~5 ×0.5~1 μm, allantoid, smooth, amyloid.

Habitat : on a fallen branch of *Quercus*.

Remarks : *Gloeoporus pannocinctus* has a poroid hymenophore both morphologically and microscopically similar to that of *Ceriporia* (그물구멍버섯속) but has a gelatinous layer between the pore layer and the subiculum as an identifying character.

Specimens : by the trail between Baekryun Temple and Hyangjuk-bong, Deogyu Mountain, Seolcheon-myeon, Muju-gun, Jeonranam-do, SNU 940806-24.

***Junghuhnia* Corda emend. Ryv., Persoonia 7: 18, 1972 (살색구멍버섯속)**

Fruitbody annual, resupinate, effused, soft or tough, usually separable, cream, pinkish buff, to cinnamon; hymenophore poroid, pores mostly small, circular to angular, dissepiments becoming thin and lacerate; subiculum whitish to pale buff, fibrous; hyphal system dimitic, generative hyphae nodose-septate, thin-walled, rarely branched, skeletal hyphae non-septate, thick-walled; skeletocystidia rare to abundant, heavily encrusted; basidia clavate, with 4 sterigmata; basidiospores ovoid to cylindrical, sometimes suballantoid, smooth, not amyloid.

Type species : *Junghuhnia crustacea* (Jungh.) Ryv.

Remarks : This genus is characterized by its tough fibrous texture of resupinate fruitbodies and typical skeletocystidia which resemble those of *Steccherinum*. Its members cause white rots on dead hardwoods and conifers.

5. *Junghuhnia luteoalba* (Karst.) Ryv., Persoonia 7: 18, 1972 (누런살색구멍버섯, 新稱)

Fruitbody resupinate, effused, initially orbicular, soon confluent, tough fibrous, not readily separable, up to 3 mm thick; hymenophore poroid, pores medium and shallow, 3~5/mm, circular to angular, cream when fresh, pale buff when dry, dissepiments becoming thin and lacerate in age; tube layer concolorous and continuous with the subiculum; margin fertile or sterile, whitish, somewhat fimbriate; subiculum cream to pale buff, fibrous, up to 1 mm thick.

Hyphal system dimitic, generative hyphae 2~3.5 μm wide, nodose-septate, thin-walled, infrequently branched, skeletal hyphae 2.5~4.5 μm wide, non-septate, thick-walled, infrequently branched; skeletocystidia 60~70×14~19 μm, rare to abundant, heavily encrusted, clavate to fusiform, embedded or frequently projecting; cystidioles 20 ×4~6 μm, thin-walled, fusiform; basidia 18~20 ×5.5~6.5 μm, clavate, with 4 sterigmata; basidiospores 4.5~5.5×1.8~2.3 μm, cylindrical or suballantoid, smooth, not amyloid.

Habitat : on a trunk of dead *Pinus*.

Remarks : This poroid fungus is known to occur on many kinds of conifers (Gilbertson and Ryvarden, 1986). The SNU specimen was found on a dead *Pinus* and has well-developed coarsely encrusted skeletocystidia.

Specimens : around the group campground of Cheonma Training Camp, Cheonma Mountain, Hwado-myeon, Namyangju-gun, Gyunggi-do, SNU 940716-21.

Hymenochaetaceae 소나무비늘버섯과

***Inonotus* Karst. Medd. Soc. Fauna Fl. Fenn. 5: 39, 1880 (시루뻔버섯속)**

Fruitbody annual, resupinate, effused-reflexed, sessile, or stipitate, soft fibrous, tough corky, or hard and brittle, darkening in KOH; pilei medium to large, solitary to imbricate; upper surface hirsute, hispid, tomentose, smooth, or crustaceous, ochraceous to reddish brown, often becoming dark and rimose in age; hymenophore tubular, pores large to small, circular to angular, yellowish brown, sometimes reddish brown, dissepiments usually becoming thin and lacerate, entire, fimbriate, or tomentose; context brown, soft fibrous to tough corky; hyphal system monomitic to dimitic, generative hyphae simple-septate, thin- to thick-walled, yellowish to brownish, binding hy-

phae present in some species, setal hyphae present in some species; setae usually present, subulate to ventricose, pointed, frequently hooked, usually reddish brown; basidia clavate to ellipsoid. with 4 sterigmata; basidiospores ellipsoid, ovoid, to subglobose, hyaline, yellowish, or brownish, smooth, not amyloid.

Type species : *Inonotus hispidus* (Fr.) Karst.

Remarks : As a representative group of the Hymenochaetaceae, this genus is easily recognized by its brown annual fruitbodies of soft to fibrous texture and is well differentiated from its related genus *Phellinus* which has woody perennial fruitbodies and dimitic hyphal system of narrower hyphae than those of *Inonotus* (Gilbertson and Ryvarden, 1993).

6. *Inonotus andersonii* (Ell. et Everh.) Cerny., Ceska Mycol. 17: 1, 1963 (배착시루뻔버섯, 新稱)

Fruitbody resupinate, effused, readily confluent, developing under and rupturing bark, tough when fresh, firm when dry, up to 3 mm thick; margin narrow, sterile or sometimes fertile, tomentose, becoming entire; hymenophore tubular, pores variable in size, 1~4/mm, circular to angular, surface frequently rough with irregular outgrowths, bright yellowish, bright yellowish brown, to dark reddish brown, dissepiments thick and entire, soon becoming thin and lacerate, tube layer concolorous with the context, up to 2 mm thick; context yellowish brown to reddish brown, fibrous, up to 1 mm thick.

Hyphal system monomitic, generative hyphae 2.5~4 μm wide, simple-septate, thin- to somewhat thick-walled, pale ochraceous, occasionally branched, setal hyphae uncommon, 4~5(~8) μm wide, non-septate, thick-walled; setae very common, variable in size, 35~45(~60)×7~10.5 μm, subulate to ventricose, embedded or slightly projecting; basidia 16~18×6~8 μm, clavate, with 4 sterigmata; basidiospores 5~6×3.5~4 μm, broadly ellipsoid, thick-walled, yellowish, smooth, not amyloid.

Habitat : on sapwood and bark of a fallen big branch of *Quercus*.

Remarks : This fungus is one of a few resupinate members of the genus and particularly develops under bark and finally breaks off the bark as the fruitbody matures and is also characterized by its variable size of pores and lacerate to rough dissepiments. The SNU specimens have setae which are very variable in size and may consist of their own taxon in some respects.

Specimens : by the trail between Biro-bong and Biro-sa, Sobaek Mountain, Punggi-eup, Yeongpung-gun, Gyungsangbuk-do, SNU 940702-5-1, SNU 940702-5-2.

7. *Inonotus hispidus* (Bull.: Fr.) Karst., Krit. Finl. Basidsv. p. 330, 1889 (시루뻔버섯, 新稱)

Fruitbody annual, sessile, soft fibrous when fresh, firm and light corky when dry; pilei usually solitary, large, up to 15×25×8 cm, dimidiate, applanate; upper surface coarsely hispid, azonate, reddish brown to dark brown, with orange tint when young; hymenophore tubular, pores large, 1~3/mm, angular, yellowish brown, becoming dark on bruising, dissepiments usually thin and lacerate, tubes bright yellow, becoming concolorous with the context, up to 4 cm long; context dark reddish brown, soft fibrous, light corky and brittle when dry.

Hyphal system monomitic, generative hyphae variable in width, 2.5~7 μm, simple-septate, thin-walled, pale ochraceous, occasionally branched, setal hyphae absent; setae lacking; basidia 28~35×10~11 μm, broadly clavate, with 4 sterigmata; basidiospores 8.5~10.5×6~8.5 μm, ovoid to subglobose, thick-walled, yellowish brown, smooth, not amyloid.

Habitat : on trunks and main branches of dead fallen or living *Quercus*.

Remarks : This is the type species of the genus and its Korean species name needs to agree with the Korean genus name according to the rules once set up by the Korean Code Committee of Mycological Nomenclature (한국말 버섯이름 통일안 위원회, 1978). Collected samples had big fruitbodies with strongly rough hispid surfaces. And they were commonly associated with trunk cankers and some of them were found on main branches at high positions of living *Quercus* apparently showing parasitic nature. Some samples were found fallen on the ground due to heavy weight of wet fruitbodies after rain.

Specimens : by the trail between Biro-bong and Biro-sa, Sobaek Mountain, Punggi-eup, Yeongpung-gun, Gyungsangbuk-do, SNU 940702-10-1, SNU 940702-10-2; by the trail between Daecheong-bong and Seolak Fall, Seolak Mountain, Seo-myeon, Yangyang-gun, Gangwon-do, SNU 940903-18, SNU 940903-21, SNU 940903-22-1, SNU 940903-22-2, SNU 940903-22-3.

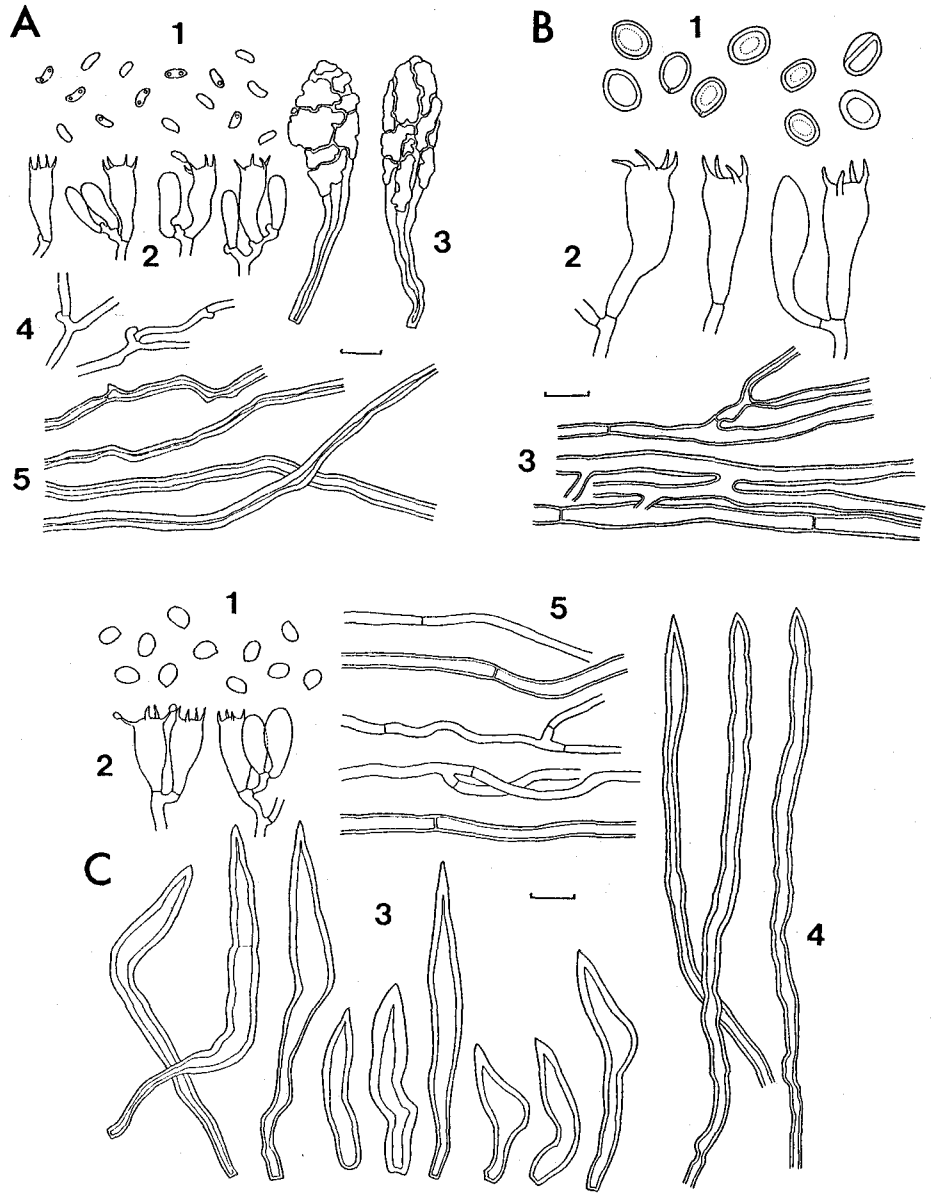

Plate 2. Microscopic structures of unrecorded fungi of the Aphyllophorales (bars=10 μm)
A. *Junghuhnia luteoalba*: 1) basidiospores, 2) basidia, 3) skeletocystidia, 4) generative hyphae, 5) skeletal hyphae
B. *Inonotus hispidus*: 1) basidiospores, 2) basidia, 3) hyphae
C. *Inonotus andersonii*: 1) basidiospores, 2) basidia, 3) setae, 4) setal hyphae, 5) generative hyphae

Conclusion

Total 290 specimens of wood-rotting fungi were collected from eleven mountain areas throughout the country from May to October in 1994 and identified to the species according to recent classification systems. Fungi belonging to the wood-rotting members of the Aphyllophorales amounted to 7 families, 42 genera, and 57 species, and among them, two genera, *Botryohypochnus* and *Vesiculomyces*, and seven species, *Botryohypochnus isabellinus, Phanerochaete laevis, Vesiculomyces citrinus, Gloeoporus pannocinctus, Junghuhnia luteoalba, Inonotus andersonii,* and *Inonotus hispidus*, were confirmed new to Korea. When these unrecorded fungi are added to the list prepared through the fungal flora study of Korean wood-rotting fungi by Jung (1994), total wood-rotting fungi of the Korean Aphyllophorales amount to 17 families, 100 genera, 224 species, and 1 variety.

The unrecorded species of the present study were collected from Gwanak Mountain, Cheonma Mountain, Jijang-bong, Sobaek Mountain, Deogyu Mountain, and Seolak Mountain. Five species were found on hardwoods, which is *G. pannocinctus, I. andersonii, I. hispidus* on *Quercus, V. citrinus* on *Acer*, and *B. isabellinus* on an unknown hardwood, and two species were found on conifers, which is *P. laevis* on *Juniperus* and *J. luteoalba* on *Pinus*. Among them, *I. hispidus* was growing on trunks of dead fallen trees or main branches at high positions of living trees of Sobaek Mountain and Seolak Mountain and was believed to distribute in limited mountain areas of the country. And *P. laevis* was the one reported mostly from hardwoods but the studied specimen was found from *Juniperus* which seemed to be an uncommon host and suggested a good possibility for this species to inhabit on conifers as often as on hardwoods.

摘 要

1994년 5월부터 1994년 10월까지 도합 11차례에 걸쳐 우리 나라 전역의 11개 지역을 탐색하여 290점의 목재부후균류의 표본을 확보하고 최근의 분류체계를 따라 자실체의 형태학적인 관찰을 통하여 분류 동정한 결과 도합 15과 54속 70종으로 확인되었다. 그중 가장 많은 종류를 차지하는 종류는 민주름버섯목 균류로서 7과 42속 57종으로 집계되었으며 이들중 고약버섯과에 속하는 융단고약버섯속(新稱, *Botryohypochnus*)의 융단고약버섯(新稱, *Botryohypochnus isabellinus*), 균열유색고약버섯(新稱, *Phanerochaete laevis*), 및 레몬고약버섯속(新稱, *Vesiculomyces*)의 레몬고약버섯(新稱, *Vesiculomyces citrinus*), 구멍장이버섯과에 속하는 검무른구멍장이버섯(新稱, *Gloeoporus pannocinctus*)과 누런살색구멍버섯(新稱, *Junghuhnia luteoalba*), 소나무비늘버섯과에 속하는 배착시루뻔버섯(新稱, *Inonotus andersonii*)과 시루뻔버섯(新稱, *Inonotus hispidus*), 도합 2속 7종이 국내 미기록으로 판명되었다.

최근 정(1994)은 한국산 목재부후균류의 분포상에 대한 연구 제 2보를 통하여 국내의 15개 국립공원과 7개 일반 지역 및 2개 도서지역을 탐색한 결과 국내 목재부후균류의 민주름버섯류를 217종과 1변종으로 확인한바 있으며 이에 본 연구의 결과를 추가하면 한국산 목재부후 민주름버섯류는 도합 17과 100속 224종 1변종으로 집계되었다. 이들 미기록종 균류는 관악산, 천마산, 지장봉, 소백산, 덕유산, 그리고 설악산에서 채집되었으며, 검무른구멍장이버섯, 배착시루뻔버섯, 및 시루뻔버섯은 모두 참나무, 레몬고약버섯은 단풍나무, 융단고약버섯은 미확인 활엽수, 균열유색고약버섯은 향나무, 누런살색구멍버섯은 소나무에서 발견되었다. 그중 시루뻔버섯은 소백산과 설악산의 살아있는 또는 죽은 참나무의 높은 둥치나 쓰러진 둥치에서 다수 발견되어 우리 나라 산악의 특정 지역에 주로 서식하는 종으로 판단되었고, 균열유색고약버섯은 원래 활엽수에 자생하며 간혹 전나무나 소나무에도 부착하는 것으로 보고되어 있으나 본 조사에서는 드물게 향나무의 죽은 가지에서 발견되어 본 종이 활엽수뿐만 아니라 침엽수에도 널리 분포할 가능성을 제시하였다.

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