Four New Species of Mushrooms Collected from a
Pinus rigida Stand in Suweon*

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Abstract: Of about 70 different mushrooms (potential ectomycorrhizal fungi) collected from
forest floor of a 24-year-old Pinus rigida rigida × taeda stand, four species have not been reported
in Korea. They are Inocybe fastigiata, Phylloporus bellus, Lactarius glaucescens, and Lactarius
subvellereus. The Phylloporus bellus has been incorrectly identified in Korea as Phylloporus
rhodoxanthus. Taxonomic descriptions for these four mushrooms are reported in this paper. The
collections cited are deposited in the herbarium of Institute of Agricultural science O.R.D.

Introduction

Recently Lee et al. (1982) reported identification
of ectomycorrhizal fungi in a pine stand near Suweon. They collected about 70 different
mushrooms from forest floor of this stand during a five-month period in 1981 (late June to early November), and
identified 26 mushrooms by species names and 20
mushrooms by genus names. They also found a new
genus, Hebeloma, which has not been reported in
Korea, but were unfortunate to identify it by spec-
ies name. Of the 26 mushrooms identified, four
species have not been reported in Korea and will be
described here as new species.

Materials and Methods

Description of the Pine Stand. The study area
was described in detail by Lee et al. (1982). The
stand was a mixture of Pinus rigida and P. rigida
× taeda covering about 3ha. It was located in
Suweon near the Institute of Forest Genetics, and
was 24 years old. Starting late June 1981, the study
area was visited daily and fruiting bodies of fungi
appearing on the forest floor were collected until
early November. The ground vegetation was descr
ibed in the paper by Lee et al. (1982).

Results and Discussion

Taxonomic Description for the Four New Fungi

1) Inocybe fastigiata (Fr. ex Schaeff.) Quél. 손발
비섯
Quelet, champ, Jura vosg. 1:180, 1872-Enchir,
Fung. 96, 1866-Kauffman, Agar. Mich. 457. 1918;
N. Am. Fl. 10:258. 1924-Imaz. & Hongo, Coloured

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Pileus 4–6cm broad, conical to campanulate, then sub-expanded, bell-shaped with prominent umbo, surface dry, splitting radially on expanding and finely rimose, straw-yellow or dark brown at umbo. Margin incurved when young, then straight, textile white. Lamellae adnexed or adnate, yellowish-clay with white serrat edge. Stipe 3~7cm long, 3~4mm thick, equal, sometimes tapering upward, somewhat white at apex, pale buff below, with scales or fibri-llose, no bulbous at near base. Spores smooth, ellip-soid 8.5–11.2×5–7μ, dark yellow ochre. Cheilocystidia thin-walled, scattered, cylindric 25–45×10–18μ pleurocystidia none.

Habitat: grow in deciduous forest, Suweon, collected on July 17, 1981 (no. IAS-L-33, collected by Mr. Koo). Very similar to L. cookei, but it is easily distinguished by the characteristics of having no bulbous base of the stipe.

Distribution: New in Korea, but reported in Japan, Europe, America, Africa.

2) Phylloporus bellus (Mass.) Corner 노랑 władz

The Agar. in Mod. Tax third. 718, 1975.

Pileus 2–4.5cm broad, at first convex then plane, surface dry, somewhat submentosely pubescent with matted wool or velvety, in dry weather pale reddish brown, pale olivaceous brown or pale brown. Flesh white, yellow, Lamellae, decurrent, distant, thick, remarkably intervenose or sometimes anastomoses, turning vivid blue when bruised. Stipe 2.5~4cm long, 4~7mm thick, so usually equal or rarely tapering downward, light red, indian red or red chalk above, dull yellowish below, more or less scurfy. Spores ellipsoid or subfusoid, 7.5–12×4–5μ, smooth, with or without suprahilar depression. Basidia four-spored, 28–47×8–14μ. Cheilocystidia fusoid, rarely subcylindric, muronate at tip, hyaline, numerous, 75–100×9.5–14μ; hymenophoral trama of the phylloporus-type; all hyphae without clamp connections.

Habitat: single or scattered on the naked ground in a Pinus rigida×taeda stand near Suweon, collected on July 14, 1981 (no. IAS-L-10, collr. Mr. Koo)

Distribution: New in Korea, but reported in Japan, Europe, America.

3) Lactarius subvellereus Peck 담 COPYING 아재비


Pileus 3.5~6.5cm broad, whitish or somewhat pale brownish, umbilicate in the disc, margin inrolled when young, surface velvety pubescent, flesh compact. Lamellae white to pale cream, narrow, crowded, adnate or slightly decurrent. Stipe 3.5~5cm long, 2~2.5cm thick, stout, white, velvety, brown near the base, milk color unchanging, taste very acid. Spores broadly elliptical to subglobe, white, 7~8.5×5~6.5μ, smooth when young, minutely echinulate connected with minute meshes. Cystidia abundant, spindle shape, with one short projection on the upper part. 45~88×6.5~10μ.

Habitat: Solitary or scattered in groups on the ground in mixed forests. Very close to L. vellereus Fr. from which it differs in the somewhat shorter spores and more crowd lamellae. This species was collected from an artificial Pinus rigida×taeda stand in Suweon, Gyeonggi Province on July 29, 1981 (no. IAS-L-60, collr. Mr. Koo)

Distribution: New in Korea, but reported in Japan, Europe, North-America

4) Lactarius glaucescens Crossland 부른유채 경비


Pileus 3~6cm broad, at first white then becoming cream, with buff patches, somewhat smooth, more or less rigid, margin involuted when young, sometimes stains greenish blue when bruised or touched. Lamellae densely crowded, very narrow, adnexed, white to whitish cream, becoming greenish blue when touched or bruised. Stipe 2.5~3cm long, 1~1.5cm thick, white or cream, usually obconic, solid, flesh white turning greenish blue when bruised or
Plate I

Inocybe fastigiata: 1-A, Fructifications; 1-B, Spores; 1-C, Basidia; 1-D, Cheilocystidia

Phylloporus bellus: 1-E, Fructification; 1-F, Spores; 1-G Cheilo and pleurocystidia
Plate II

*Lactarius subvellereus*: II-A, Fructifications; II-B, spores; II-C, cheilo and pleurocystidia

*Lactarius glaucescens*: II-D, Fructification; II-E, Spores; II-F, Cheilo and pleurocystidia.
touched. Milk white, turns greenish blue when exposed somewhat copious, spores subglobose, almost smooth, with minute warts, few thin lines or networks of thin lines, white, 6.5–8.5×6.7μm, becoming bright blue when soaked in 5% formalin. Cystidia abundant subclavate or fusiform, sometimes mucronate at tip. 42.5–72.5×7.10.5μm.

Habitat: grow on the ground in deciduous forest, but rarely found. This species was collected on the ground under the trees, *Pinus rigida × tada* at Mt Chilbo near Suweon, Gyeonggi Province, collected on July 28, 1981. (no. IAS-L 53, coll. Mr. Koo) This species closely resembles *L. piperatus* (Fr.) S.F. Gray but it distinctively differs from the latter in the milk colour and turns greenish blue when bruised or touched.

Distribution: New in Korea, but reported in Japan. Europe, North-America

**References**


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