

興味あるニューギニア産きのこ類数種について

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On some interesting larger fungi from New Guinea

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The present report is based on the collections of larger fungi which were made during our third mycological exploration in New Guinea from Nov. 1971 to Jan. 1972. Here seven species distributed in three genera of the Agaricales are dealt with. These were all collected in *Castanopsis-Quercus-Araucaria* forests in Oksapmin (ca. 1,600 m alt.), West Sepik. Two of them, *Russula eburneo-areolata* and *Lactarius austrovolemus*, have not previously been described, three have already been known in Japan, and the remaining two are not yet determined chiefly because of the insufficiency of the materials. The most interesting species of them is perhaps *Cortinarius nigrosquamosus*, which was first described from Japan by the present writer in 1969 and has been found only in the prefectures of Shiga and Hyogo. *Russula senecis* which is commonly found in forests of broad-leaved trees throughout Japan has also been thought to be endemic of the country. The present paper is the first record of these two species from outside Japan.

In the following specific descriptions color notations within parentheses are from KORNERUP and WANSCHER (1966): e.g. 4C6 refers to page 4, color block C6. The specimens cited are all deposited in the Herbarium of the National Science Museum, Tokyo.

1. ***Cortinarius nigrosquamosus*** HONGO, J. Jap. Bot. 44: 234 & 235, fig. 2, 1~3. 1969. (Fig. 1)

Pileus 4 cm broad, convex then plane, surface dry, grayish yellow (4C6), densely covered by acute, recurved or erect, flocculose, black scales. Flesh rather thin, pallid melleous; taste mild, odor almost none. Lamellae adnate-subdecurrent, subdistant, intervenose, ochraceous-cinnamon. Stipe 6 cm long, 6 mm thick, clavately thickened toward the base, grayish yellow, paler above, covered with appressed-fibrillose black scales in several irregular bands up to the cortina, stuffed. Spores rusty fulvous under the microscope, subglobose or broadly elliptical, somewhat almond-shaped, punctate, 1-guttulate, $6.5\sim 8\times 5\sim 7\ \mu\text{m}$; basidia four-spored, $26\sim 35\times 7.5\sim 9\ \mu\text{m}$; gill trama of parallel hyphae, $3\sim 12\ \mu\text{m}$ thick; scales on the pileus consisting of fascicles of $7\sim 20\ \mu\text{m}$ broad septate hyphae, with dissolved olivaceous intracellular pigment, the terminal members subcylindric or subventricose with rounded tip, or attenuate-subacute; all hyphae with clamp connections.

HAB. Under *Castanopsis*, etc., Oksapmin, Dec. 17, 1971 (no. 6102).

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DISTR. Japan (Shiga, Hyogo), New Guinea.

In Japan this is a rare fungus found in deciduous oak forests or in mixed pine and oak forests. Characterized by the black, shaggy, protruding scales and the subglobose spores.

2. *Cortinarius rubicundulus* (REA) PEARSON, Trans. Brit. Mycol. Soc. **29**: 197. 1946; HONGO, Mem. Shiga Univ. **13**: 54. 1963; IMAZEKI & HONGO, Col. Ill. Fungi Jap. **2**: pl. 24, fig. 152. 1965. (Fig. 2)

Pileus 3 cm or more broad, convex then plane, surface dry, cream color, with small innate darker scales, especially in the center, turning brownish orange or somewhat cinnabar when touched, margin at first incurved. Flesh moderately thick at the disc, whitish, turning yellowish when cut, but finally becoming cinnabar color; taste mild, odor agreeable. Lamellae adnate, close to subdistant, pale ochraceous then cinnamon. Stipe 5~8 cm long, 8~10 mm thick, clavately thickened or subbulbous at the base, colored like the pileus, fibrillose-squamulose below, solid. Cortina scanty, ochraceous then cinnabar. Spores rusty fulvous under the microscope, somewhat almond-shaped, slightly rough, $5.5 \sim 8 \times 3 \sim 4.5 \mu\text{m}$, basidia four-spored; gill trama of parallel hyphae.

HAB. In forest of *Castanopsis*, *Quercus*, etc., Oksapmin, Dec. 17, 1971 (no. 6103).

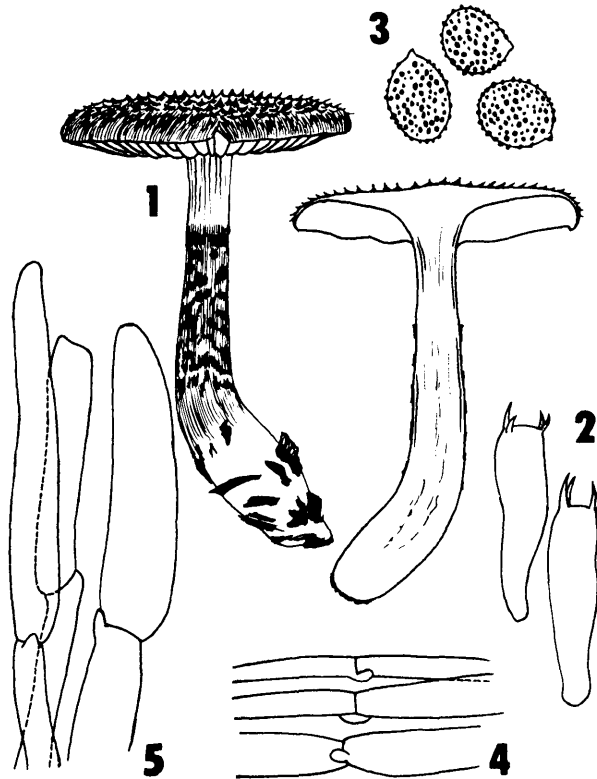


Fig. 1. *Cortinarius nigrosquamosus* HONGO: 1. Fructifications $\times 1$; 2. Basidia $\times 900$; 3. Spores $\times 1,500$; 4. Hyphae from gill trama $\times 900$; 5. Hyphae from scale on pileus $\times 600$.

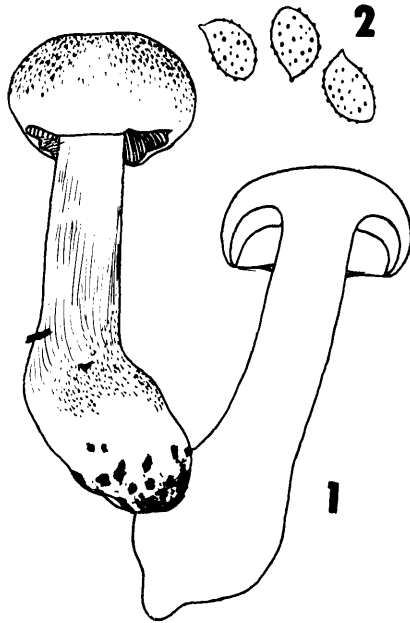


Fig. 2. *Cortinarius rubicundulus* (REA) PEARSON: 1. Fructifications $\times 1$; 2. Spores $\times 1,500$.

DISTR. Europe, Japan, New Guinea.

In Japan this fungus is usually found in broad-leaved forests, especially under oaks.

3. *Russula* sp. (Fig. 3, 1~5)

Pileus 7.5 cm broad, plane and slightly depressed, surface minutely tomentose, dry, brownish red (9C6), hardly peeling, margin even and irregularly lobed. Flesh white, rather firm; taste mild, odor not distinctive. Lamellae nearly free, close, whitish cream, often branched, 6 mm broad, fragile, connected by veins. Stipe 4 cm long, 11 mm thick, somewhat rugose, pink, solid. Spores subspheric oval, warty-spinulose, $7.5\sim 10\times 6\sim 8\ \mu\text{m}$; basidia four-spored, $49\sim 59\times 11\sim 13\ \mu\text{m}$; cheilo- and pleurocystidia scattered, prominent, narrowly fusoid, the apices acute or mucronate, often thick-walled, $80\sim 115\times 11\sim 14\ \mu\text{m}$; epicutis composed of ascendant or somewhat erect hyphae which are constricted, septate, the apices rounded or subacute, no pilocystidia.

HAB. In forest of *Castanopsis*, Oksapmin, Dec. 21, 1971 (no. 6130).

Only one fruit-body was collected. Closely allied to *R. lepida* FR., from which it differs in the ornamentation of the spores and the thick-walled cystidia.

4. *Russula senecis* IMAI, J. Fac. Agr. Hokk. Imp. Univ. **43**: 344, pl. 5, fig. 7. 1938; IMAZEKI & HONGO, Col. Ill. Fungi Jap. **1**: pl. 42, fig. 238, 1957; IMAZEKI, HONGO & TSUBAKI, Common Fungi of Japan in Colour, pl. 60, fig. 1. 1970. (Fig. 3, 6 & 7)

Pileus conspicuously wrinkled, raw Sienna (6D7) or darker. Lamellae sordid cream, with dark brown edges, beaded with drops. Stipe pale ochraceous, with brown dots. Spores subglobose or globose, with several broad bands and isolated warts, $8\sim 12.5\times 7.5\sim$

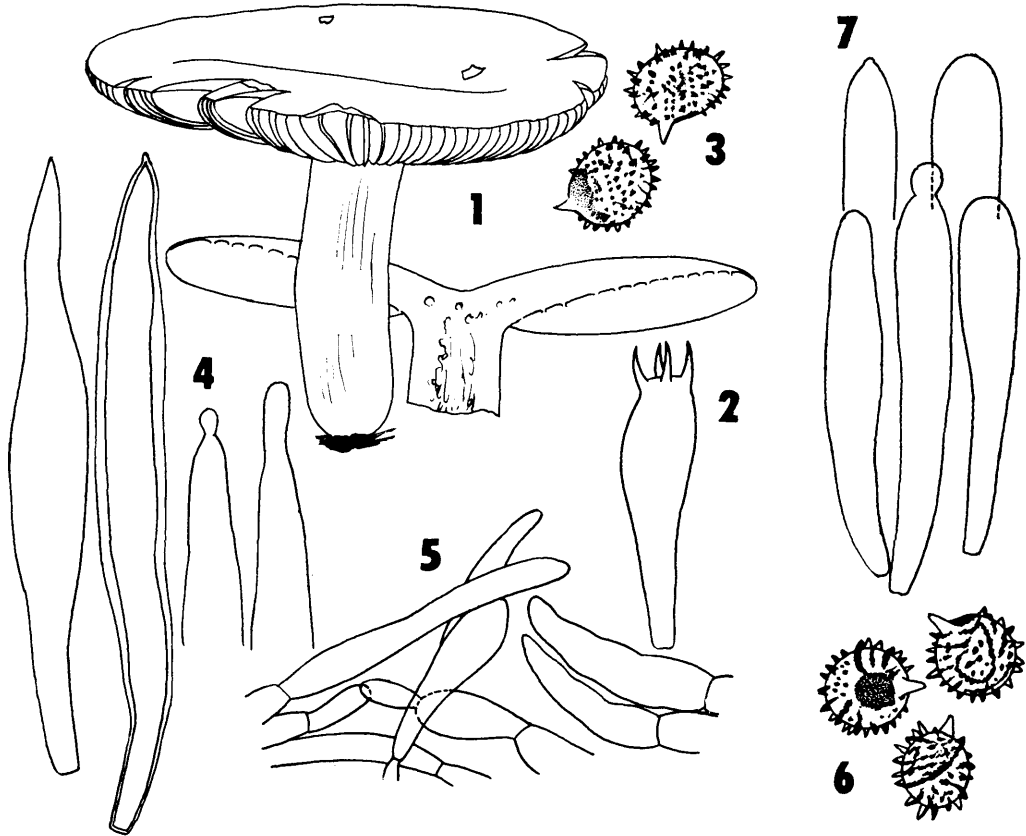


Fig. 3. *Russula* sp.: 1. Fructifications $\times 1$; 2. Basidium $\times 900$; 3. Spores $\times 1,500$; 4. Pleurocystidia $\times 900$; 5. Pileus cutis $\times 900$. *Russula senecis* IMAI: 6. Spores $\times 1,500$; 7. Cheilo- & pleurocystidia $\times 900$.

10.5 μm ; basidia four-spored, 37~42 \times 7.5~10.5 μm ; pleurocystidia abundant, clavate or subcylindric, often mucronate, 63~77 \times 7~17 μm ; cheilocystidia abundant, similar to pleurocystidia, but often somewhat narrower (7~11 μm broad).

HAB. In Mixed forest of *Castanopsis*, *Quercus*, *Araucaria*, etc., Oksapmin, Dec. 21, 1971 (no. 6128).

DISTR. Japan, New Guinea.

In Japan it is also usually found in *Castanopsis* or *Quercus* forests. Easily recognizable by the markedly wrinkled cap, dark brown gill edge, minutely dotted stem and by the characteristic spore-configuration.

5. *Russula eburneo-areolata* HONGO sp. nov. (Fig. 4)

Pileo 4~9 cm lato, convexo, dein expanso, medio leviter depresso, non viscido, subpruinoso vel glabro, eburneo, rimoso-areolato, margine sulcato-tuberculosa; carne moderate crassa, alba, sapore miti, odore nullo; lamellis subliberis vel leviter subdecurrentibus, confertis, interdum basifurcatis, albis, intervenosis, 8~10 mm latis; stipite 3~6 cm longo,

12~20 mm crasso, subaequali vel ad basim attenuato, pruinoso, ruguloso-striato, albo, farcto; sporis in cumulo albis, 7~8.5×6~7 μm , verrucis brevibus, tenuiter connexis; cystidiis 74~102×5.5~12 μm .

Pileus 4~9 cm broad, convex then expanded and slightly depressed in the center, surface not viscid, subpruinose or glabrous, ivory color (champagne 4B4~ivory 4B3), cuticle soon cracked into patches showing the white flesh in the cracks, margin furrowed and papillate. Flesh moderately thick, white, taste mild, odor none. Lamellae nearly free or slightly subdecurrent, narrowed behind, sometimes forked near the stem, white, connected by veins, broad (8~10 mm), rather thick, the edges even. Stipe 3~6 cm long, 12~20 mm thick, subequal or tapering below, pruinose, wrinkled-striate, white, rather firm, stuffed. Spores white in mass, subspheric oval, warty, with some bands and fine

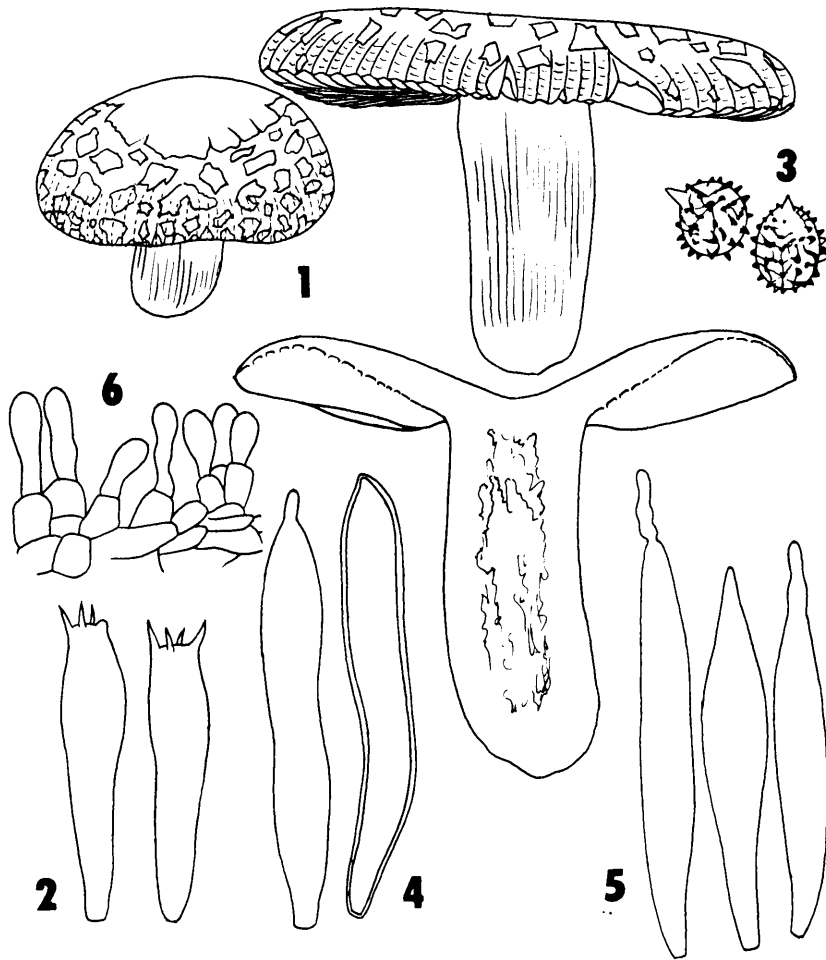


Fig. 4. *Russula eburneo-areolata* HONGO; 1. Fructifications $\times 1$; 2. Basidia $\times 900$; 3. Spores $\times 1,500$; 4. Pleurocystidia $\times 900$; 5. Cheilocystidia $\times 900$; 6. Pileus cutis $\times 900$.

connecting lines, $7\sim 8.5\times 6\sim 7\ \mu\text{m}$; basidia four-spored, $36\sim 48\times 11\sim 13.5\ \mu\text{m}$; cheilocystidia rather scattered, subcylindric, clavate or ventricose, usually mucronate, sometimes more or less thick-walled, $74\sim 102\times 5.5\sim 12\ \mu\text{m}$; pleurocystidia similar, scattered; epicutis composed of a turf of clavate to subcylindric cells arising from a pseudoparenchymatous hypodermium.

HAB. In forest of *Castanopsis*, etc., Oksapmin, Dec. 18, 1971 (no. 6116, coll. Y. Doi); Dec. 21, 1971 (no. 6126-type).

DISTR. New Guinea (Western Highlands and West Sepik).

Very close to *R. virescens* (ZANTED.) FR., from which it differs chiefly in the ivory-colored cap. A similar fungus, whose skin of the cap is also broken up into patches, often occurs likewise in *Castanopsis* forests in Japan, but it has not been taxonomically studied yet.

6. ***Lactarius austrovolemus*** HONGO sp. nov. (Fig. 5)

Pileo 4~6 cm lato, convexo-subdepresso, sicco, minute pruinoso, e aureo fulvo, margine primum involuta; carne firma, flavido-alba, fracta brunnescente; lacte copioso, albo, miti; lamellis adnatis vel leviter decurrentibus, distantibus, cremeis, vulneratis brunnescentibus; stipite 5~6 cm longo, 1~1.7 cm crasso, ruguloso, minute pruinoso, pileo pallidiore; sporis subglobosis vel globosis, reticulatis, $7.5\sim 10\times 7\sim 9\ \mu\text{m}$; cystidiis abundantibus, crasse-tunicatis, $56\sim 94\times 5\sim 8\ \mu\text{m}$.

Pileus 4~6 cm broad, convex and slightly depressed, surface dry, somewhat circular-

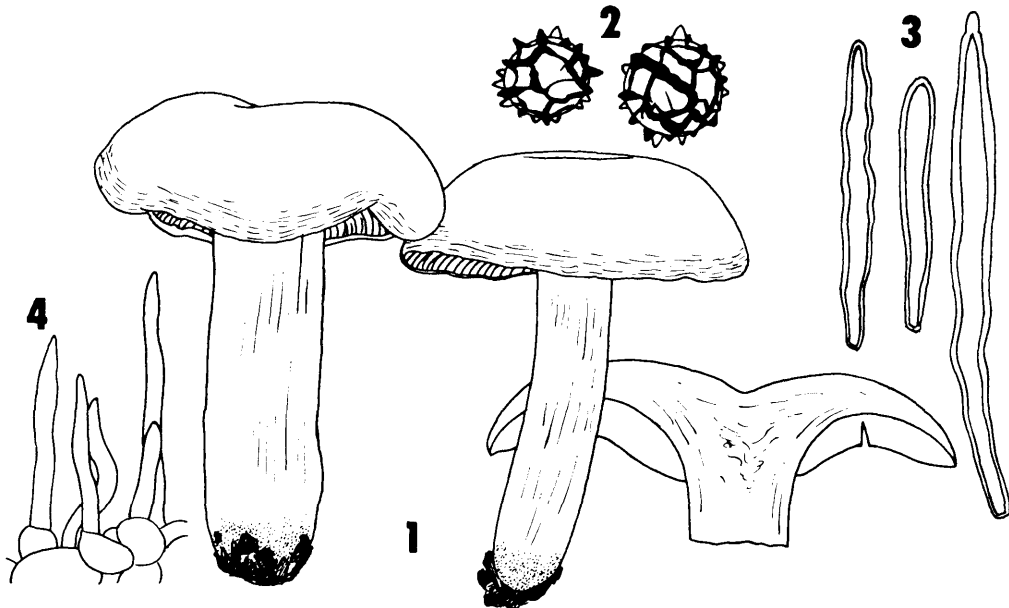


Fig. 5. *Lactarius austrovolemus* HONGO: 1. Fructifications $\times 1$; 2. Spores $\times 1,500$; 3. Cheilo- & pleurocystidia $\times 900$; 4. Pileus cutis $\times 900$.

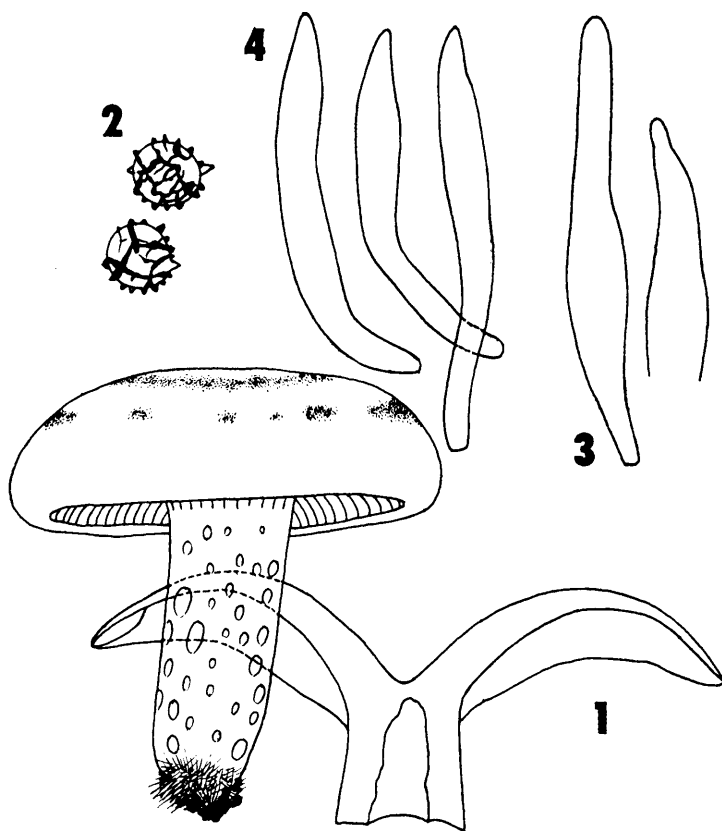


Fig. 6. *Lactarius* sp.: 1. Fructifications $\times 1$; 2. Spores $\times 1,500$; 3. Pleurocystidia $\times 900$; 4. Cheilocystidia $\times 900$.

ly rugulose, especially near the margin, minutely pruinose, golden yellow (5B7), brownish orange (6C8) or paler; margin at first incurved. Flesh firm, yellowish white, becoming brownish on exposure to the air, odor of herring. Milk copious, white, rather sticky, unchanging, staining the flesh and lamellae brown, mild. Lamellae adnate or slightly decurrent, distant, cream color, bruising brownish. Stipe 5~6 cm long, 1~1.7 cm thick, nearly equal, dry, rugulose, minutely pruinose, paler than the pileus, stuffed. Spores white in mass, subglobose or globose, coarsely reticulate-spinulose, $7.5\sim 10\times 7\sim 9\ \mu\text{m}$; basidia four-spored, $35\sim 42\times 11\sim 15\ \mu\text{m}$; cheilo- and pleurocystidia abundant, bristle-like, acute or subacute, thick-walled, $56\sim 94\times 5\sim 8\ \mu\text{m}$; pileocystidia bristle-like, $36\sim 56\times 4\sim 5\ \mu\text{m}$.

HAB. In forest of *Castanopsis*, Oksapmin, Dec. 21, 1971 (no. 6129-type).

DISTR. New Guinea (West Sepik).

This species is very close to *L. volemus* (FR.) FR., but differs in the distant gills. *L. hygrophoroides* BERK. et CURT. somewhat resembles this as to both color and distant gills, but differs in the absence of any brown staining of the flesh and gills. *L. clarkei* CLEL., an Australian species seems to differ little from this, but is described as lacking cystidia.

7. *Lactarius* sp. (Fig. 6)

Pileus 6~9 cm broad, convex and deeply depressed, at length becoming infundibuliform, surface not viscid, pale ochraceous, more or less zoned, especially toward the center; margin incurved when young. Flesh whitish to pallid ochraceous, odor slight. Milk white, unchanging, bitterish. Lamellae decurrent, often forked near the stipe, rather thick, distant, cream color (4A3), 5~7 mm broad, brownish stained. Stipe 5 cm long, 1.4~2 cm thick, equal, concolorous, pitted, hairy at the base, hollow. Spores subglobose, coarsely reticulate-spinulose, $6.5\sim 8.5\times 5.8\sim 7.7\ \mu\text{m}$; basidia four-spored, $37\sim 48\times 7.5\sim 10\ \mu\text{m}$; pleurocystidia scattered, $49\sim 83\times 8\sim 13\ \mu\text{m}$, lanceolate-subventricose; cheilocystidia numerous, $47\sim 70\times 5.5\sim 8.5\ \mu\text{m}$, lanceolate.

HAB. In forest of *Castanopsis*, etc., Oksapmin, Dec. 21, 1971 (no. 6143).

Very near to *L. zonarius* FR. and *L. insulsus* FR., differing chiefly in the less zoned cap and the distant gills. *L. acerrimus* BRITZ. differs in having two-spored basidia and much larger spores ($10\sim 15\times 8\sim 12\ \mu\text{m}$, MOSER 1967).

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2. MOSER, M. (1967) Basidiomyceten II. Teil. Die Röhrlinge und Blätterpilze (Agaricales), 3. Aufl. In H. GAMS, Kl. Kryptogfl. II b/2. Stuttgart.

和 文 摘 要

興味あるニューギニア産きのこ類数種について

本 郷 次 雄

筆者は1971年11月~1972年1月に、小林義雄博士を隊長とする第3次ニューギニア微生物調査隊に加わって東ニューギニア(パプア・ニューギニア)で、きのこ類の採集を行なったが、そのさいの採集品の研究結果の一部をここに報告する。本稿で扱った7種は、いずれも中央高地の西イリアンに近いオクサプミン付近の森林内で採集したものである。

1. *Cortinarius nigrosquamosus* HONGO オニフウセンタケ—筆者が1969年に日本で新種として記載した種類である。
2. *Cortinarius rubicundulus* (REA) PEARSON イロガワリフウセンタケ—ヨーロッパ・日本に分布。
3. *Russula* sp.
4. *Russula senecis* IMAI オキナクサハツ—日本の広葉樹林(ブナ科を主とするもの)にごく普通の種類である。
5. *Russula eburneo-areolata* HONGO (新種)—かさの表皮は象牙色で、アイタケのように細かくひびわれ。日本のシイ林にもよく似た種類がみられる。
6. *Lactarius austrovolemus* HONGO (新種)—チチタケにきわめて近いが、ひだがあらい点で区別される。
7. *Lactarius* sp.