

Tsuguo HONGO*: Notes on Japanese Larger Fungi (7)

本郷次雄*: 日本産きのこ類の研究 (7)

34) **Hygrophorus imazekii** Hongo sp. nov. (*Hygrocybe imazekii* Hongo).

Pileo 1.5-3 cm lato, conico-convexo, dein expanso, saepe subumbonato, laete coccineo vel aurantiaco, non-viscido, glabro, margine leviter striatulo; odore saporeque nullo; lamellis adnato-subdecurrentibus, latis (7-9 mm), fere triquetris, distantibus, cremeis, saepe venoso-connexis; stipite 3-5 cm longo, 2-5 mm crasso, aequali, cavo, apice pileo concolore, basi pallidiore; sporis 7-9.5 × 3.5-5 μ—In silvis.

Microscopic characters: Spores hyaline under the microscope, oblong, often constricted at middle, smooth, nonamyloid, 7-9.5 × 3.5-5 μ; basidia four-spored, 26-46 × 7.5-8 μ; cheilo- and pleurocystidia none; gill-trama of subparallel hyphae 7-11.5 μ thick; pileustrama homogeneous, no well differentiated pellicle present; hyphae with clamp connections.

Hab. Gregarious, on the ground in forest, Yokoyama-mura, Musashi, Oct. 13, 1954 (type). Dist. Endemic.

This species is somewhat close to *H. coccineus* Fr., from which it is easily distinguished by the brighter red to orange yellow colors, and the nearly triangular gills. The type specimen is preserved in the Institute of Biology, Shiga University.

35) **Clitocybe fragrans** (Fr.) Quél. Champ. Jura et Vosges, 91 (1872).

Spores hyaline under the microscope, ellipsoid or narrowly ellipsoid, smooth, nonamyloid, 6.5-7.5(8) × 3.5-4 μ; basidia four-spored, 14-17 × 5.5-6 μ; cheilocystidia none.

Hab. Gregarious or subcespitose, on the ground in frondose forest, Ishiyamadera, Ōtsu, Nov. 13, 1953; Mii-dera, Ōtsu, Oct. 21, 25, 1954. Dist. Europe, Siberia, Africa, North America (?). New to Japan.

Illustrations: Cooke, Ill. Brit. Fungi, pl. 124; Richon et Roze, Atlas Champ. pl. 32, figs. 11-13; Gillet, Champ. Fr. pl. 137; Lange, Fl. Agar. Dan. 1: pl. 37, figs. F and G (var. *depauperata*).

The writer's plant is almost odorless form, while the typical one is said to have a strong smell of aniseed.

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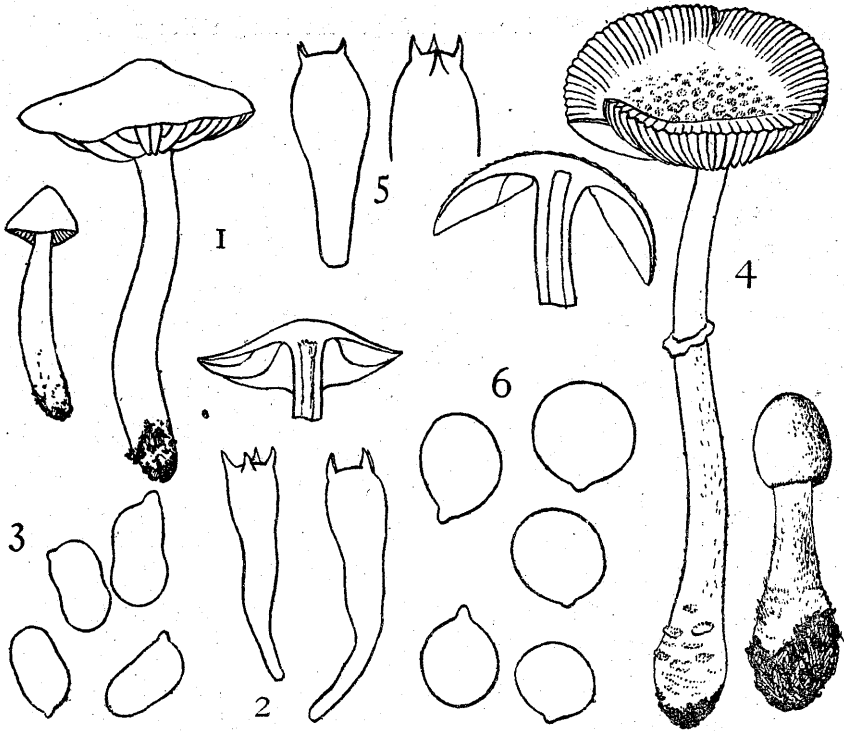


Fig. 1. *Hygrophorus imazekii* Hongo: 1, carpophores; 2, basidia; 3, spores. *Amanita rubrovolvata* Imai: 4, carpophores; 5, basidia, 6, spores. (3, 6 $\times 1000$; 2, 5 $\times 900$).

36) ***Amanita rubrovolvata*** Imai in Bot. Mag. Tokyo, **53**: 392 (1939).

Pileus 2.5-3.5 cm or more broad, ovate-campanulate at first, then convex to broadly convex, an length becoming plane and more or less depressed at the center; surface slightly viscid when wet, scarlet red to vermilion at the center, lighter (yellowish orange, orange yellow or light yellow) and striate on the margin, provided with red, orange or yellowish, floccose-powdery, rather friable, small masses of the fragments of volva; pellicle separable. Context yellowish to white, often reddish under the pellicle, rather thin, soft, odor and taste none. Lamellae white to slightly yellowish, free, close ($L=60-70$; $1=1(2, 3)$), crescent-shaped, 3 mm broad, fimbriate on the edge, lamellulae sharply emarginate as if cut off. Stipe 4.5-11 cm \times 4-6 mm, slightly attenuated upward, bulbous at the base (1-1.5 cm), yellowish

orange, yellowish or nearly white and more or less powdery-squamulose below the annulus, yellowish white to pure white and pruinose above the annulus, stuffed to hollow. Annulus median or superior, membranaceous, persistent, white above, yellowish below, margin floccose-powdery and flavous or scarlet. Volva floccose-pulverulent, rather evanescent, concolorous with the coverings of the pileus, sometimes forming 2 to 4 partial or complete encircling rings on the bulbous base of stipe. Spores white in deposits, subglobose to globose, smooth, $7-8.5 \times 6-7.5 \mu$ or $6.5-8 \mu$ in diam., nonamyloid, with a large central gutta; basidia four-spored, $(26) 32-46 \times (7.5) 10-11.5 \mu$.

Hab. Solitary or gregarious, on the ground in forest, especially under frondose tree, Ishiyama-dera, July 9, 1953; Aug. 31, 1953; July 2, 8, 16, 31, 1954. Distr. Endemic (Mutsu, Ugo, Shinano, Musashi, Ōmi).

This is a very beautiful and striking species. Though Dr. Imai originally described the color of the cap as "purpureo-ruberi," the writer's specimens well coincide with his description in all other respects. Mr. Imazeki also has collected this species at Yokoyama-mura in Musashi. So this fungus seems to be widely distributed at least throughout Honshū.

In regard to the relationships of this fungus, the writer believes that it may come close to Imai's *A. pulchella*, and also to ringless *A. farinosa* Schw. because of its striate cap, powdery volva and nonamyloid spores.

37) **Hebeloma sacchariolens** Quél. Champ. Norm. 10, pl. 1, f. 2 (1879).

Spores dull ochraceous under the microscope in KOH, broadly fusoid to almond-shaped, minutely verrucose, $11-16.5 \times 5-6.5 \mu$; basidia four-spored, $19-23 \times 7-7.5 \mu$; cheilocystidia crowded, cylindrical with a rounded apex, thin-walled, hyaline, $23-40 \times 5.5-7.5 \mu$.

Hab. On the ground in forest, Motohachiōji-mura, Musashi, Oct. 8, 1953. Distr. Europe. New to Japan.

Illustrations: Konrad et Maublanc, Ic. Sel. Fung. pl. 81, I; Lange, l.c. 3: pl. 120, f. E.

38) **Cortinarius collinitus** (Fr.) Fr. sensu Lange, l.c. 3: 24, pl. 88, f. B (1938).

Spores ferruginous in deposits, subamygdaliform, $13-15(17) \times 2-8 \mu$, roughened; basidia four-spored, $37-44 \times 12-15 \mu$; cheilocystidia not differentiated.

Hab. Gregarious or scattered, on the ground in pine woods, Seta-chō, Ōmi, Nov. 18, 1951; Ishiyama-Hiratsu-chō, Ōtsu, Nov. 8, 1954. Distr. Japan, Europe, North America.

In the previous paper (Journ. Jap. Bot. 27: 191 (1952)) the writer identified this fungus as *C. mucosus* (Fr.) Ricken. The above collections, however, agree with Lange's account of *C. collinitus* very well in all respects. According to A. H. Smith (Lloydia, 7: 173-175 (1944)) the typical *C. collinitus* has violaceous gills and basidia-like cheilocystidia, so he called the Lange's fungus as *C. collinitus* var. *typicus* f. *caeruliipes*.

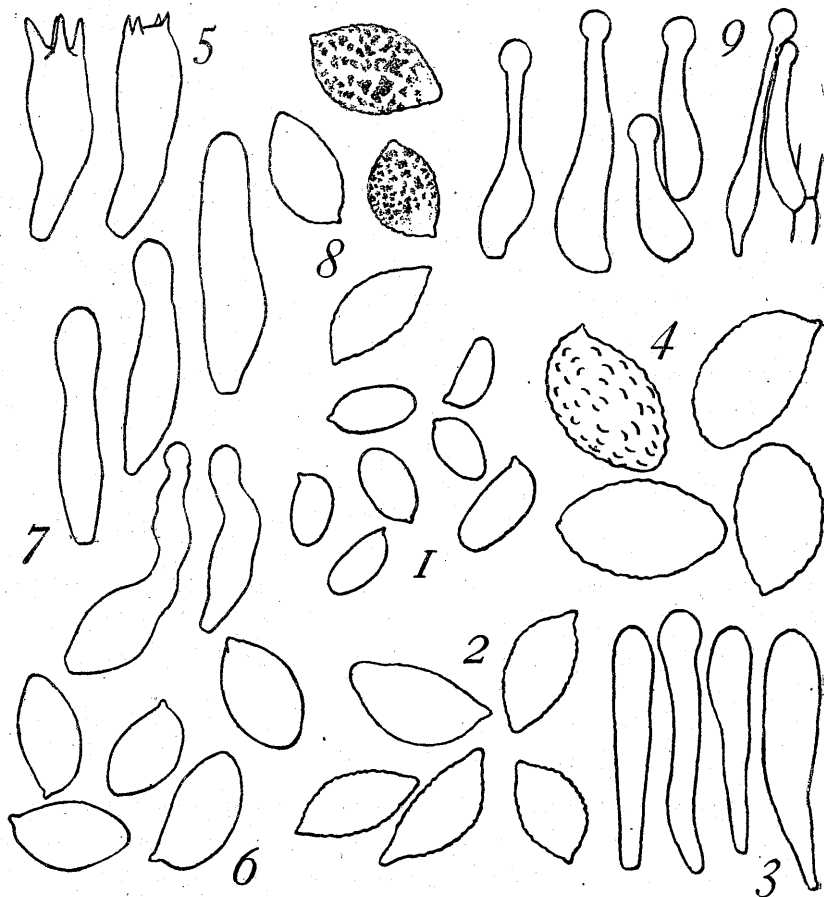


Fig. 2. *Clitocybe fragrans* Quél.: 1, spores. *Hebeloma sacchariolens* Quél.: 2, spores; 3, cheilocystidia. *Cotinarius collinitus* Fr.: 4, spores. *Galerina sphagnum* Kuehner: 5, basidia; 6, spores; 7, cheilocystidia. *Galerina tibicystis* Kuehner: 8, spores; 9, cheilocystidia. 1, 2, 4, 6, 8 $\times 1500$; 3, 5, 7, 9 $\times 900$.

39) **Galerina sphagnorm** (Fr.) Kühner, Galera, 179 (1935) (sensu Atk., non Konr. et Maubl., Lange).

Spores rusty fulvous under the microscope in KOH, somewhat amygdaliform, with a suprahilar disc on the inner side, smooth, $9.5-12 \times 5.5-6.5 \mu$; basidia four-spored, $22-30 \times 8.5-9.5 \mu$; cheilocystidia crowded, cylindrical to fusiform or somewhat bottle-shaped, with an obtuse or rounded apex, thin-walled, hyaline, $32-50 \times 8-10.5 \mu$; hyphae with clamp connections.

Hab. Scattered to gregarious, among *Sphagnum cymbifolium*, Ishiyama-Hiratsuchô, Ôtsu, Nov. 5, 1954. Distr. Europe, North America. New to Japan.

Illustration: Kühner, l.c. figs. 57, 58.

Recently Dr. Kobayasi (Sci. Res. Ozegahara Moor, 553-560 (1954)) has reported *Galera sphagnorum* from Kôzuke, Mutsu and Shinano, but it appears to be *Galerina tibiucystis* (Atk.) Kühner according to his description and illustration.

40) *Galerina tibiucystis* (Atk.) Kühner, Galera, 176 (1935).

Galera sphagnorum sensu Konr. et Maubl., Lange.

Spores rusty fulvous under the microscope in KOH, elliptic-amygdaliform, verrucose, $9.5-10.5 \times 5-6 \mu$, suprahilar disc indistinct; basidia four-spored, $22-31 \times 8-11 \mu$; cheilocystidia crowded, $30-48 \times 3-10.5 \mu$, somewhat bottle-shaped or narrowly fusiform with cylindrical neck and round top ($3.5-5 \mu$ in diam.), thin-walled, hyaline; hyphae with clamp connections.

Hab. Scattered or gregarious, among *Sphagnum cymbifolium*, Ishiyama-dera, Nov. 12, 1954. Distr. North America, Europe, Japan.

Illustrations: Konrad et Maublanc, l.c. pl. 173, I (as *Galera sphagnorum*); Kühner, l.c. f. 59; Lange, l.c. 4: pl. 130, f. E (as *Galera sphagnorum*); Smith, Pap. Mich. Acad. Sc. Arts. Lett. 20: pl. 30, f. I (as *Galerula tibiucystis*).

This species is microscopically distinguished from the preceding one, in the verrucose spores and the truly capitate cystidia.

41) **Russula metachroa** Hongo sp. nov.

Pileo circa 4-7.5 cm lato, e convexo-plano depresso, dein subinfundibuliformi, viscido, adnato-pelliculoso, albido, dein sordide flavidulo vel sordide ochraceo, albo-pruinoso, margine patente demum tuberculoso-sulcato; carne alba, fracta flavescens, crassa, sapore acerrimo; lamellis attenuato-adnatis vel subliferis, confertis, basifurcatis, plorantibus, primo albis, dein leviter cremeis, tritis sordidis; stipite 2-5 cm longo 7-15 mm crasso, subaequali, albo, deinde sordide ochraceo,

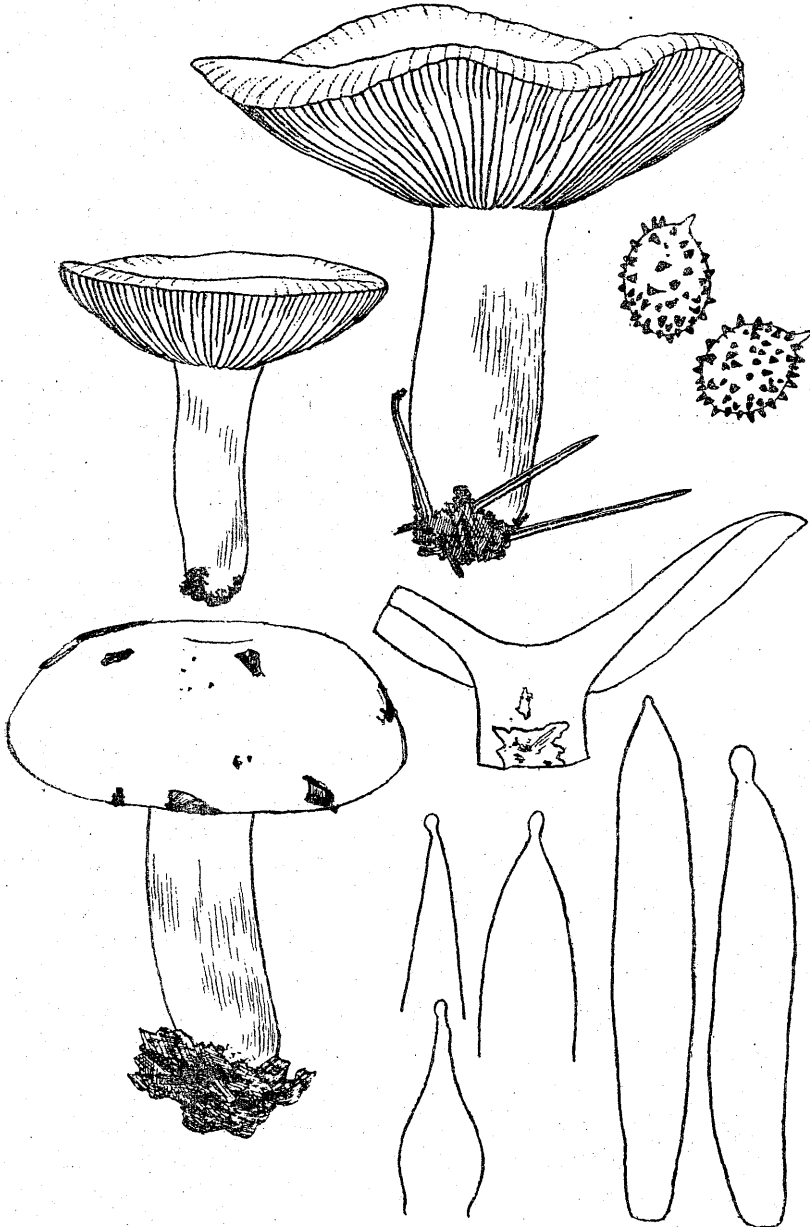


Fig. 3. *Russula metachroa* Hongo. (spores, $\times 1500$; cheilocystidia, $\times 900$).

rugoso-striato, spongioso-cavo; sporis 9-12×6.5-8.5 μ (vel 8-11×7-9 μ).—In silvis coniferarum.

Microscopic characters: Spores white in deposits, subspheric oval, warty, amyloid, 9-12×6.5-8.5 μ (or 8-11×7-9 μ); basidia four-spored, 38-49×9.5-13 μ ; cheilocystidia crowded, cylindrical with evenly tapered apices, 30-76×7-9.5 μ ; pleurocystidia abundant, similar with or somewhat larger than cheilocystidia, 50-86×8-11 μ ; cuticular hyphae interwoven, 3.5-6.5 μ thick; pileocystidia cylindrical, apex cuspidate or obtuse, 5.5-8.5 μ thick; all hyphae clampless.

Hab. Gregarious, on the ground in pine woods, Seta-chō, Oct. 6, 1954 (type); Oct. 31, 1954.

The type is preserved in the Institute of Biology, Shiga University. This species is very abundant in pine woods in autumn. Not poisonous.

It is most closely related to *R. farinipes* Römell (sensu Lange), but is readily distinguishable by the larger spores and the hollow stem. Drs. S. Ito and Imai (Trans. Sapporo Nat. Hist. Soc. 16: 56 (1940)) described *R. boninensis* from Bonin Islands, which is also very close to *R. metachroa*, but they did not give much information on its microscopic characters, so the writer can not refer to the differences between these two species.

34) **コベニヤマタケ** (新種)。鮮紅色乃至帯黄橙色の可憐なきのこである。ひだが幅広く莖に直生状垂生をなし、ほぼ三角形をなしている点でベニヤマタケ *Hygrophorus coccineus* と区別される。農林省林業試験場浅川分室の実験林内で採集した。種名は、筆者の研究に対し絶えず御懇切なる御指導をたまわりつつある菌学者今関六也氏を記念して命名した。

35) **コカブイヌシメジ** (新称)。大津市石山寺及び三井寺の境内にて採集。

36) **ヒメベニテングタケ** (今井)。ベニテングタケ *Amanita muscaria*、タマゴタケ *A. caesarea* のごとく赤色乃至橙黄色のきわめて美しい菌であるが、外被膜が赤、橙又は黄色、粉状であるので容易に区別される。石山寺の境内には毎年夏期に多く発生する。

37) **ヒメワカフサタケ** (新称)。浅川に近い元八王子村にてとつた。

38) **ツバアブラシメジ** (今井)。の一品。近江瀬田町及び大津市石山平津町におけるマツタケ山にて採集。以前筆者が *Cortinarius mucosus* (Fr.) Ricken と同定したのが本菌である。

39) **ミスゴケタケモドキ** (新称)。胞子が平滑なのと、紡錘体の先端が頭状にふく

れていない点で次のミズゴケタケと区別せられる。大津市石山平津町の林内、オオミズゴケの間に発生する。

40) **ミズゴケタケ** (小林)。小林博士の最近報告せられた *Galera sphagnorum* (Fr.) Karst. は本種であろうと思うので、同博士の命名された和名を独断ながら本種にもちいた。石山寺境内マツタケ山のオオミズゴケの中に発生していたものを採集した。

41) **イロガワリシロハツ** (新種)。*Russula farinipes* にきわめて近いが、胞子が大形で茎が中空な点において区別される。伊藤、今井両博士が小笠原諸島から報告せられたオガサワラキハツ *R. boninensis* も本種に近いものであるが原記載が簡単なため、特に顕微鏡的性質について両者を比較することはきわめて困難である。本種は筆者所有のマツタケ山 (近江瀬田町) に初期多量の発生をみる。

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○ **青ヶ島の地衣 (附 御蔵島の地衣)** (朝比奈泰彦) Yasuhiko ASAHINA: Lichens collected in Aogashima and Mikurazima.

青ヶ島は伊豆七島最南端の小火山島で東経 139° 46', 北緯 32° 27', 面積は 5.43 km² である。昭和 29 年 11 月東京都の主催で人類学会の調査団が青ヶ島に渡航する機会に同行した資源科学研究所員水島正美君が顕花植物の傍ら採集された地衣 9 種と小林純子嬢の採集された 2 種の地衣を鑑定し *Stereocaulon* の一新種を得又 *Parmelia neglecta* Asahina の有子器標本に遭遇した。此の機会に筆者は昭和 27 年 8 月に津山尚君が同じく豆南諸島の一つ御蔵島 (東経 139° 36', 北緯 33° 53', 面積 18.7 km²) で採集された地衣 11 種のリストを附記して置く。

Liches of Aogashima (5.4 Square Km., E. longit. 139° 46', N. latit. 32° 27').

1. **Anapychia heterochroa** Wain. Bot. Mag. Tokyo, **35**: 60 (1921). On the barks of *Machilus Thumbergii* Sieb. et Zucc. 本州温暖の地方には頻出する。
2. **Physcia obscura** Nyl. v. **ulotrichoides** Nyl.—Lich. Extraeurop. No. 346, var. 3.—Nouv. Arch. Mus., t. II, 4. ser., p. 72 (1900). On rocks among mosses. Medulla materia rubra replata. 本州中部以西, 四国, 九州に普通である。
3. **Ramalina sublittoralis** Asahina. J. J. B. (Journ. Jap. Bot.), **15**: 221 (1939). On rocks. It contains usnic and sekikaic acids. 伊豆, 房州の海岸に多い。
4. **Parmelia Yasudae** Räs. J. J. B., **16**: 84 (1940). On barks of *Cryptomeria japonica* D. Don. Fertil. 本州中部以西に産するが無子器のものが多し。
5. **Parmelia neglecta** Asahina. J. J. B., **17**: 71 (1941). Lich. Japan. vol. **2**: 140 (1952). On rocks. Fertil.