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Notulae Mycologicae (18)

Auctore

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ABSTRACT

Five species of Agaricales of Japan are described and illustrated. Among these, *Amanita pseudovaginata* is new to science; *Hygrocybe firma*, *Hydropus atrialbus* and *Leccinum intusrubens* (comb. nov.) are new to the Japanese fungous flora. Remaining one, *Tricholoma maculatipes* is redescribed from a newly collected specimen.

131) **Hygrocybe firma** (Berk. & Br.) Sing., Sydowia **11**: 355. 1957; Heinemann, Bull. Jard. Bot. Brux. **33**: 442. 1963; Pegler & Fiard, Kew Bull. **32**: 300. 1978—*Hygrophorus firmus* Berk. & Br., Journ.Linn. Soc. Bot. **11**: 563. 1871; Corner, Trans. Brit. Mycol. Soc. **20**: 176. 1936; Hesler & Smith, N. Am. Sp. Hygrophorus 149. 1963; Hongo, Bull. Natn. Sci. Mus. **16**: 539. 1973. (Fig. 68: 1–5)

Cap 1–2.5 cm broad, at first convex then becoming plane and often slightly umbilicate; surface moist but not viscid, minutely scurfy squamulose, especially on the disc, deep red, scarlet or yellowish red, at times slightly translucent striate when moist. Flesh thin, rather soft, concolorous; taste mild, odor none. Gills adnate to decurrent, distant ($L=$ 20–25; $l=0$–1), ±3 mm broad, reddish with yellowish edges, thick, edges even. Stem 2.5–5.5 cm long, 3–4 mm thick, equal or slightly tapering below, smooth, concolorous with the cap above, paler toward the base, hollow. Basidia dimorphous, usually 4-spored, the larger 45–63×11–13 μ, bearing spores 11–17(19)×7.5–10(11) μ; the smaller 23–35×6.5–7.5 μ, bearing spores 5–7.5×3.5–5 μ; all spores ovoid to broadly ellipsoid, smooth, inamyloid; gill trama subparal-

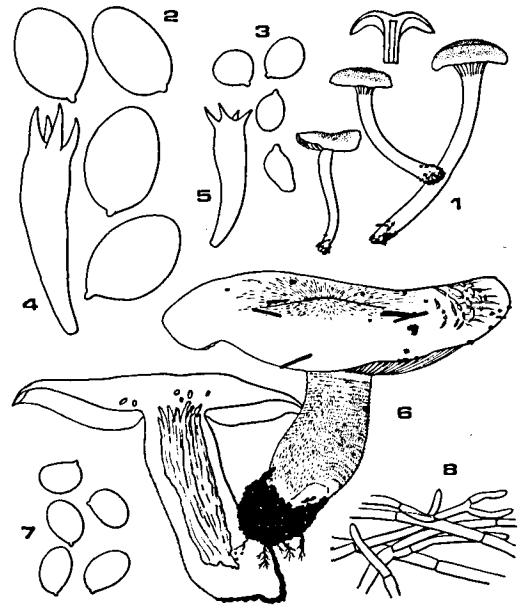

Fig. 68. *Hygrocybe firma* : 1, carpophores (×1/2); 2, large spores (×1000); 3, small spores (×1000); 4, large basidium (×500); 5, small basidium (×500). *Tricholoma maculatipes* : 6, carpophores (×1/2); 7, spores (×1000); 8, pileal surface (×250).

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lel; clamp connections present.

Hab. On the ground in both deciduous and evergreen oak forests, Sotohata, Ôtsu-city (Shiga), Sept. 25, 1958 (no. 1882*): Kasugayama, Nara-city (Nara), June 19, 1962 (no. 2491).

Distr. Widespread in the tropics. New to Japan (Nara, Shiga).

The writer first met this beautiful tropical fungus in highlands in Papua New Guinea more than ten years ago (Hongo 1973, 1. c.). Probably it is widely distributed in southwestern Japan.

132) **Tricholoma maculatipes** Hongo & Matsuda, Journ. Jap. Bot. **37**: 369. 1962. (Fig. 68: 6–8)

Cap 8–10 cm broad, convex expanding to broadly convex to nearly plane; surface slimy viscid when wet, brownish orange (6C8** ~ 6D8) ("chestnut"*** to "hazel") at the center, paler toward the margin, nearly smooth at first, often breaking up into coarse scales, especially on the margin, margin incurved when young. Flesh thick, firm, white, brownish around the wormholes; taste mild, odor slight or none. Gills sinuate, crowded, 5–7 mm wide, white, rufous spotted with age, edges more or less eroded. Stem 4.5–5.5 cm or more long, ± 2.3 cm thick at the middle, slightly enlarged downward or at times subventricose, surface fibrillosely scaly with apex pruinose, white at first, becoming somewhat concolorous with the cap, solid, at times becoming hollow. Spores 5.5–7 × 3.5–4.5 μ, ovoid to ellipsoid, smooth, with one large, refractive body inside, inamyloid; basidia 23–28 × 5.5–6.5 μ, 4-spored; cheilocystidia and pleurocystidia none; gill trama regular, of parallel hyphae 4.5–10 μ thick; cuticle of interwoven, rufous brown to nearly hyaline hyphae 2.5–5 μ thick, the walls gelatinized and often with pigment incrustations; clamp connections absent.

Hab. Gregarious, on the ground in pine-oak forest (*Pinus densiflora*, *P. parviflora*, *Quercus serrata*, etc.), Ôdorii, Ôtsu-city (Shiga), Oct. 29, 1978 (no. 5856).

Distr. Japan (Hiroshima, Shiga, Yamagata).

The type specimen (no. 1556) was collected in Hiroshima-prefecture in 1956. Except few slight differences the above specimen well agrees with the type in all other respects. This species belongs to Sect. *Genuina*, Stirps *Pessundatum* (Singer, Lilloa **22**: 228. 1951).

133) **Hydropus atrialbus** (Murr.) Sing., Agaricales Mod. Taxon. 3rd ed. 400. 1975—*Clitocybe atrialba* Murr., Mycologia **5**: 207. 1913—*Fayodia atrialba* (Murr.) Sing.. Lloydia **5**: 127. 1942 — *Clitocybula atrialba* (Murr.) Sing., Agaricales Mod. Taxon. 2nd ed. 289. 1962. (Fig. 69: 1-3)

Cap (1.5)3–7 cm or more broad, convex-depressed at first, soon expanded to funnel-shaped, the margin remaining incurved; surface not viscid, smoky to sooty brown when young, becoming brownish in age, glabrous at first, later covered by minute scurfy squamules, especially on the disc. Flesh thin, white; taste and odor not distinctive. Gills decurrent, white, distant (L=28–40; l=3), more or less intervenose, 2–6 mm broad, edges even. Stem (2.5)6–9 cm long, (2)4–7 mm thick, equal, hollow, surface densely scurfy, concolorous with the cap but paler, white-tomentose at the base. Spores 8–11 × 6–8 μ, white in deposit, broadly ellipsoid to broadly ovoid, smooth, 1-guttulate, amyloid; basidia 33–53 × 7.5–8.5 μ, 2-spored; pleurocystidia

* The collections cited are all deposited in the writer's herbarium at Ôtsu.
** Color notations are from A. Kornerup & J. H. Wanscher, Methuen Handbook of Colour (1967): e. g. 6C8 refers to plate 6, color block C8.
*** Color names given in quotations are those of R. Ridgway, Color Standards and Color Nomenclature (1912).

and cheilocystidia none; all hyphae with clamp connections.

Hab. Single or sometimes in groups, on decaying wood of broad-leaved trees (*Quercus*), Kasuga-yama, Nara-city (Nara), May 30, 1963 (no. 2704): in campus of Shiga Univ., Ôtsu-city (Shiga), June 5, 1981 (no. 6246, coll. Kim & Hashiya).

Distr. North America (Pacific coastal areas). New to Japan (Nara, Shiga).

Easily recognizable by the smoky to sooty brown, scurfy cap and stem, the white gills,

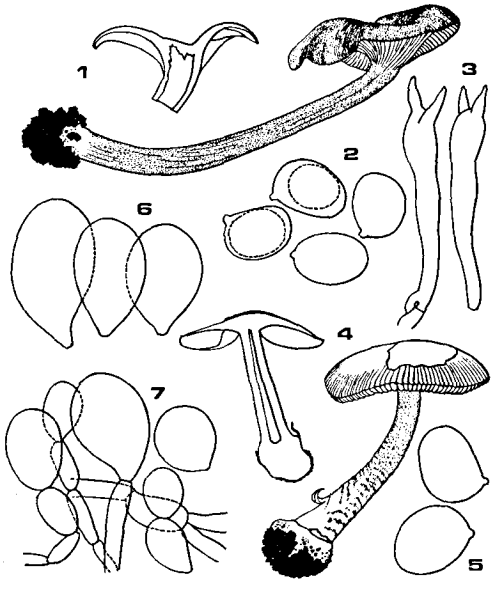

Fig. 69. *Hydropus atrialbus* : 1, carpophores (×1/2); 2, spores (×1000); 3, basidia (×500). *Amanita pseudovaginata* : 4, carpophores (×1/2); 5, spores (×1000); 6, marginal cells (×500); 7, crushed volval remnants from cap (×250).

and the amyloid spores. In North America, this species is said to occur most frequently on decaying wood of alder. But both of the above specimens were found on that of oak.

134) **Amanita pseudovaginata** Hongo sp. nov. (Fig. 69: 4–7)

Pileo 3.5–5 cm lato, convexo dein planoconvexo, in margine sulcato-striato, sicco, griseo, centro obscuriore, fragmentis volvae magnis vel parvis griseis membranaceis ornato; lamellis liberis, subdistantibus, albis, acie griseo-pruinoso, lamellulis truncatis; stipite 4–6 cm longo, apice 5–6 mm, basi 10–14 mm crasso, submarginato-bulboso, sursum attenuato, exannulato, albo, deorsum pallide griseo, flocculoso-squamuloso, apice pruinoso, e farcto cavo; volva grisea, fere omnino adnata, limbo 2–4 mm lato; carne alba, in stipite basi griseola, sapore miti, odore nullo; sporis 8.5–11.5(12.5)×7–9(9.5) μ, late ellipsoideis, levibus, non-amyloideis; basidiis 40–58×12–15 μ, tetrasporis.

Cap 3.5–5 cm broad, convex then planoconvex, sulcate-striate at the margin, surface dry, "pale drab-gray" to "pale Ecru-drab", darker (near "fuscous") in the center, often bearing large or small grayish ("pale drab-gray") membranous patches of the volva. Gills free (with a faint tooth), subdistant, white, somewhat intervenose, 4–6 mm broad, the edge grayish pruinose; short gills truncate. Stem 4–6 cm long, 5–6 mm thick at apex, 10–14 mm at base, attenuated upward, with subglobose, submarginate, bulbous base, exannulate, white above, pale grayish below, flocculose-squamulose, apex pruinose, stuffed to hollow. Volva gray, nearly entirely attached to the base of stem, with only a 2–4 mm wide free limb. Flesh white, grayish below cuticle of cap and also in the base of stem; taste mild, odor none. Spores 8.5–11.5(12.5) × 7–9(9.5) μ, broadly ellipsoid, smooth, hyaline, nonamyloid; basidia 40–58 × 12–15 μ, 4-spored; marginal cells 20–35 × 12.5–20 μ, subglobose to pyriform, hyaline, thin-walled; remnants of volva on the cap consisting of loosely interwoven, 4.5–12 μ thick hyphae and globose, ellipsoid or clavate cells, 25–60 ×17–39 μ terminal or in short chains.

Hab. Along road-cuts in *Pinus-Quercus* forest, Ikenoo, Uji-city (Kyoto), Aug. 4, 1980 (no. 6134-*holotype*).

Distr. Japan (Kyoto).

Superficially resembling *A. vaginata* (Fr.) Vitt.. especially in color, but differs in the

stem with bulbous base to greater part of which the volva attaches, and the broadly ellipsoid spores. It is undoubtedly closely related to *A. elata* (Mass.) Corner & Bas but differs in the color of the cap, the absence of a spurious ring derived from volva, and in having the larger and more ellipsoid spores.

135) **Leccinum intusrubens** (Corner) Hongo comb. nov.—*Boletus intusrubens* Corner, Boletus in Malaysia 104, figs. 34, 35, pl. 16 (1). 1972.

(Fig. 70)

Cap 5–8 cm broad, convex, later more or less expanded; suface not viscid, subpruinate, dark brown (6E5～6E4), mottled or punctate with darker colors, in age often blue-greenish at least in patches. Flesh thick, whitish, quickly turning saffron red when cut, then slowly becoming grayish to blackish; taste mild, odor slight. Tubes depressed around the stem, 10–15 mm deep, grayish yellow (4B5) ("chamois" to "honey yellow"), reddening on bruising; pores concolorous, minute to small, 1–2 per mm, sometimes compound. Stem 7–8 cm long, 11–17 mm thick (at the middle), subventricose with attenuate base, solid; surface longitudinally rugulose, ground color reddish blond (5C3), apex whitish to pale yellowish, with coarse, fuscous to black, scurfy ornamentation, especially on the ridges; interior whitish, often cinnamon-buff in lower half, staining reddish then blackish when injured. Spores 9.5–15 (16.5) × 4.5–5.5 μ (occasional giant spores up to 21.5 μ long, 7 μ broad also present), inequilateral with a broad suprahilar depression in profile, subfusoid in face view, smooth, ochraceous under the microscope (in KOH); basidia 32–40 × 7.5–9.5 μ, 4-spored; pleurocystidia 23–50 × 8.5–13 μ, fusoid-ventricose with an elongate neck, thin-walled, scattered; cheilocystidia 17–43×6.5–12 μ, clavate, thin-walled, abundant and making the edge heteromorphous, mixed with some ventricose cystidia; hymenophoral trama bilateral of the *Boletus*-type; pileal cuticle a trichodermium, the end cells of the hyphae cylindric to clavate, subventricose, or attenuated, 26–55 × 7–15.5 μ with umbrinous sap; surface of the stem covered by a disrupted hymenium of clavate cells, ventricose, often appendaged caulocystidia (29–75×10–17 μ), and 2–4-spored caulobasidia (20–33×7.5–11 μ); clamp connections not present.

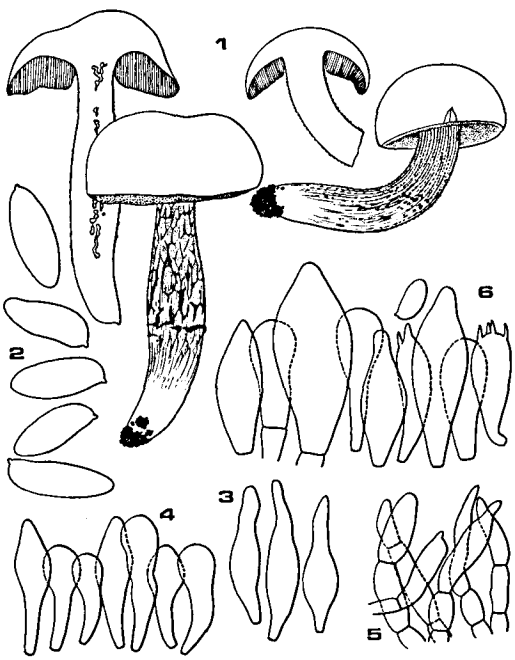

Fig. 70. *Leccinum intusrubens* : 1, carpophores (×1/2); 2, spores (×1000); 3, pleurocystidia (×500); 4, cheilocystidia (×500); 5, pileal surface (×250); 6, elements from surface of stem (×500).

Hab. In *Castanopsis* forest, Kiyomizu-temple, Kyoto-city (Kyoto), Aug. 29, 1976 (no. 5507); Sept. 5, 1982 (no. 6405).

Distr. Malaya. New to Japan (Kyoto).

This fungus is characterized by its dark brown cap and the intense reddening of the flesh. The Japanese specimen somewhat differs from the original description in the more or less ventricose stem and the presence of fertile caulobasidia. So it may represent a new geographic variant. *L. griseum* (Quél.) Sing. much resembles this species as Corner

mentions, but the red staining of the flesh is weak or absent, the spores are usually larger (12.5–19.5×5–6 μ), and the pileal cuticle is cellular.

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菌　類　記 (18)

この報文には日本産ハラタケ目菌類5種をとりあげたが、うち1種は新種、3種は日本新産種である。本文に引用した標本はすべて滋賀大学教育学部生物学研究室の筆者の手もとに保存されている。

131) *Hygrocybe firma* (Berk. & Br.) Sing. ネッタイベニヒガサ（新称）。赤～黄赤色の美しい菌で、世界の熱帯に広く分布する。筆者は大津市及び奈良市でこれを採集しているが、おそらく日本西南部に広くみられるかも知れない。担子器及び胞子にそれぞれ大小2型があり大胞子は大担子器に、小胞子は小担子器に付く。

132) *Tricholoma maculatipes* Hongo & Matsuda アザシメジ（本郷・松田）。1962年に広島県産の標本をもとに新種として記載したものであるが、数年前大津市田上山（大鳥居町）で立派な標本を採集し得たので、ここでふたたびとりあげて原記載の不備を補うことにした。

133) *Hydropus atrialbus* (Murr.) Sing. ヒロヒダタケモドキ（新称）。灰褐色～暗褐色の中形種で、ひだは白色、胞子はアミロイド（糊性）、北米西部と日本に分布。北米ではハンノキ類の枯木に発生するというが、筆者の標本（奈良市及び大津市産）はいずれもナラ類の枯木上で採集されたものである。

134) *Amanita pseudovaginata* Hongo カブラツルタケ（新種）。ツルタケ *A. vaginata* に外観が似るが、茎の基部が塊茎状にふくらむことと広楕円形の胞子を有する点において区別される。つぼは塊茎部に癒着し、上端がわずかに遊離するだけで、さや状または袋状にはならない。宇治市池ノ尾で採集。

135) *Leccinum intusrubens* (Corner) Hongo イロガワリヤマイグチ（新称、新組合わせ）。スミゾメヤマイグチ *L. griseum* に似るが、肉が強く赤変しのち黒変すること、胞子がやや小形なこと、及び傘の表皮が毛状被であることなどで区別される。京都市清水寺のシイ林で採った。