Notes on Some Japanese Fungi

By

Takewo Hemmi

(With 5 text-figures)

I. ***Clavaria Miyabeana*** ITO: Nom. Jap. *Beni-naginata-take* (Fig. 1)

Hab. On the ground in woods. Kyoto (Aug. 3, 1931, A. TSUCHIDA;
Oct. 15, 1931, S. AKAI and I. MATSUURA).

This fungus is easily distinguished from other known species of *Clavaria* by its beautiful red colour. The description of this fungus was first published by IMAI (7) in 1930 and, so far as the writer knows, the present paper is the second record of the collection of this fungus. According to IMAI two specimens of this fungus, both collected at the lake side of Kuttcharo in Hokkaidô, are preserved in the Herbarium of Hokkaidô Imperial University. The writer has two specimens of the same fungus in his herbarium, both collected in Kyoto during this year at different places. From these facts, the writer may draw the interesting conclusion that the fungus is widely distributed through provinces of Honshû as well as on the main Island of Hokkaidô.

The color of the plants collected by TSUCHIDA was similar to "Strawberry Pink", "Scarlet" and especially

Fig. 1 *Clavaria Miyabeana* ITO

* Contributions from the laboratories of Phytopathology and Mycology, Kyoto Imperial University, Kyoto, Japan. No. 59.

to "Peach Red" in a fresh condition, changing to "Salmon Orange" or to "Orange" (RIDGWAY) after drying. But the other specimens were more or less abnormal in color, when the writer examined them, chiefly owing to their drying condition. The spores are almost hyaline, smooth, subspherical with a minute mucro and are 5.0 to $7.2\ \mu$ in diameter.

II. **Clavaria amethystinoides** PECK: Nom. Jap. *Murasaki-Hôkitake-modoki* (nov.) (Fig. 2)

Hab. On the humus soil under trees. Kyoto (July 6 & 14, 1931, S. AKAI; July 24, 1931, T. HEMMI), Iwakura-mura near Kyoto (July 15, 1931, K. MATSUO).

This fungus is very commonly found in July in the vicinity of Kyoto. Basing his conclusions on the study of a specimen found at

Fig. 2 *Clavaria amethystinoides* PECK

Stow, Massachusetts, PECK (9) published a diagnosis of the fungus in 1907, as a new species. The color, as well as the shape of the fruit bodies of the present fungus, tends to show some variation owing to growing conditions. The writer has carefully compared the descriptions given by PECK (9), SACCARDO (14), BURT (1) and also by COKER (2) with his plants and finds them similar.

The plants are for the most part single, but are sometimes gregarious growing together in scant numbers, 1 to 6 cm. tall, distinctly stalked, usually antlered or palmately branched with a few rather short suberect branches; the tips are commonly acute. They show a "Pale Flesh Color" or a "Pale Lilac" becoming "Drab Gray" (RIDGWAY) or darker according to their drying. The stems are generally a little darker than the branches. Spores are hyaline, smooth, almost spherical and 6.5 to 8.6 μ in diameter. Each basidium has two sterigmata. The fungus is a new addition to the mycological flora of Japan.

III. **Clavaria acuta** Sow.: Nom. Jap. *Shiro-yari-take*.

Hab. On the ground in woods. Iwakura-mura near Kyoto (Oct. 12, 1929, K. MATSUO).

Basing his conclusions on a collection found at the lake side of Shikotsu in Hokkaidô on September 23, 1929, IMAI (7) reported the fungus as a species added to the mycological flora of Japan. Preceding his publication, the writer also had studied the same fungus, collected at Iwakura-mura near Kyoto in October of the same year. The fact that those two places are far apart from each other shows the fungus to be common and widely distributed throughout Honshû and Hokkaidô. The plant is easily distinguished by its slender white fruit bodies having 1 to 2.5 cm. height. The spores are hyaline, smooth, subspherical with a distinct apical mucro and 5.34 to 10.68 μ in diameter.

IV. **Pleurotus porrigens** (PERS.) FR.: Nom. Jap. *Sugi-hira-take* (nov.) (Fig. 3)

Hab. On the bark of the living trunks or on the decaying stumps of *Cryptomeria japonica* DON. Mt. Hiei, Kyoto (Sept. 30, 1930, I. HINO); Mt. Atago, Kyoto (Oct. 24, 1930, T. HEMMI); Kiyotaki, Kyoto (Oct. 18, 1931, T. HEMMI).

The plant is snow white and sessile, growing on decaying stumps or sometimes on the bark of the living trunks of *Cryptomeria japonica* in the vicinity of Kyoto. Judging from the descriptions given by the European authors (3, 10, 11, 12, 15) the fungus seems to grow only on coniferous stumps. The fruit bodies are first resupinate and exceedingly

small, growing gradually, however, to a moderate size. The largest plant preserved in the writer's herbarium is 7×5 cm. in size. The grown plants are ear-shaped, narrow at the base, dilating above with undulated lobes. The margin of the pileus shows a tendency to roll slightly toward the underside. The gills concur mostly in an umbilicus, but are decurrent occasionally, being very narrow and crowded. The upper side of the pileus is almost smooth near the margin and tomentose to-

Fig. 3 *Pleurotus porrigens* (PERS.) FR.

wards the basal portion. These morphological characters are identical with those of *Pleurotus porrigens*, which was illustrated by COOKE (4).

The plant grows singly or clustered and imbricated, that is, they overlap. They may all arise separately from the wood, and yet be overlapping, though oftener several of them are closely joined or united at the base. The flesh of the pileus is white and thin. Spores are hyaline, globose to subglobose and measure $3.5-5.4\ \mu$ in diameter or $4.3-7.0 \times 3.5-5.4\ \mu$ in size. The spore-dimension of the fungus in question is smaller than that in the European descriptions (11, 12). However, SACCARDO (12) noted its dimension as $7-8 \times 6$ or $6 \times 4\ \mu$, the latter case being similar to the writer's measurement. This is also a new addition to the mycological flora of Japan.

V. ***Femsjonia luteo-alba* FR.:** Nom. Jap. *Nikawa-take* (nov.)

Hab. On the bark of decaying wood. Mt. Hiei, Kyoto (Nov. 23, 1929, S. KONISHI).

The genus, *Femsjonia*, belongs to Dacryomycetaceae, and includes only a few species. *Femsjonia luteo-alba* is a rare plant and has not, as far as the writer knows, been collected in Japan. The writer's specimens were found in a wet condition and accordingly the shape of the fruiting bodies seemed to be a little abnormal. They were gelatinous, erumpent, sessile and yellow in color. Their sizes were rather small, being commonly 10 to 15 mm. in diameter. One of them was, however, exceedingly large. They were mostly convex and folded, becoming wrinkled. Spores are hyaline to yellowish, boat-shaped, oblong or allantoid with attenuated ends, $19.2-48.0\ \mu$ in length and $9.6-14.4\ \mu$ in width. They are first one celled and multi-guttulate, but becoming later 8 to 15 or more-septate. The spores of the fungus in question are a little larger than those of the European material described by REA (11) and KILLERMANN (8). However, the agreement of other characters with those given by several authors (8, 11, 13) has led the writer to recognize the fungus as *Femsjonia luteo-alba* FR.

VI. ***Clavaria pyxidata* PERS.:** Nom. Jap. *Fusa-himehōki-take* (nov.) (Fig. 4)

Hab. On rotten wood. Mt. Hiei, Kyoto (Sept. 9, 1928, H. HAMADA); Iwakura-mura near Kyoto (Oct. 9, 1929, K. MATSUO).

The plants grow in tufts reaching 5 or 6 cm. in height. They are

pallid and then become tan color or dull ochraceous. The main stem is slender, dividing into several branches which spread out rather widely and then turn up again; the ultimate branch expanding at their tips into little cups from the margins of which spring the branchlets radiately, the terminal ones dentate. The spores are hyaline, ovate, ellipsoidal to pip-shaped, sometimes spherical and $2.67-4.50 \times 2.2-2.9 \mu$ in size. Comparing the above characteristics with those described by many authors (1, 2, 11), the writer has come to believe the fungus in question to be *Clavaria pyxidata* PERS. The fungus is easily recognized by the cup-shaped expansions at the end of the branches and by small hyaline spores. As far as the writer knows, this is also a first record of this fungus in Japan.

VII. *Clavaria Kunzei* FR.: Nom. Jap. *Shiro-hime-hôki-take* (Fig. 5)

Hab. On the ground in woods. Mt. Kurama near Kyoto (Oct. 9, 1929, T. ABE); Iwakura-mura near Kyoto (Oct. 12, 1929, K. MATSUO).

Fig. 4 *Clavaria pyxidata* PERS.

This is a well marked species of *Clavaria* distinguished easily by its small-sized, white-colored and branching fruit bodies, generally being characterized by delicate and pretty appearance. The first report of this fungus in Japan was published by IMAI (6) in 1929, and according to him he had collected the fungus at Nopporo in Hokkaikô. Since the writer has also two collections from different places near Kyoto, the fungus seems to be distributed very widely throughout Honshû as well as Hokkaidô.

The spores of the specimens preserved in the writer's herbarium are hyaline, mostly subspherical, sometimes short

ellipsoidal or pointed at one end, minutely asperulate and $2.64-5.34 \times 2.64-4.20 \mu$ in size. The characters of the writer's specimens are similar to those described by COTTON and WAKEFIELD (5), BURT (1) and also COKER (2).

Fig. 5 *Clavaria Kunzei* Fr.

Finally the author wishes to express his hearty thanks to the persons who kindly contributed the valuable collections to his herbarium, and particular thanks are due to Mr. K. MATSUO and to Miss. S. KURATA for their kindness in assisting his works.

November 25, 1931

College of Agriculture,
Kyoto Imperial University,
Kyoto, Japan

Literature cited

1. BURT, E. A.: The North American Species of *Clavaria* with Illustrations of the Type Specimens. *Annals Missouri Bot. Gard.*, Vol. IX, p. 1-78, 1922.
2. COKER, W. C.: The Clavarias of the United States and Canada. p. 65-67, p. 25-27, 1923.
3. COOKE, M. C.: *Handbook of British Fungi*. p. 50, 1871.

4. COOKE, M. C.: Illustrations of British Fungi. Vol. II, Pl. 259, 1881-1883.
 5. COTTON, A. D. and WAKEFIELD, E. M.: A Revision of the British *Clavariae*. Trans. British Myc. Soc., Vol. VI, p. 164-198, 1920.
 6. IMAI, S.: On the Clavariaceae of Japan. Trans. Sapporo Nat. Hist. Soc., Vol. XI, p. 38-44, 1929.
 7. IMAI, S.: On the Clavariaceae of Japan. II. Trans. Sapporo Nat. Hist. Soc., Vol. XI, p. 70-77, 1930.
 8. KILLERMANN, S.: ENGLER—Die natürlichen Pflanzenfamilien. Aufl. 2, Bd. VI, S. 122, 1928.
 9. PECK, C. H.: New species of fungi. Bull. Torrey Bot. Club., Vol. XXXIV, p. 97-104, 1907.
 10. RAMSBOTTOM, J.: A Handbook of the Larger British Fungi. p. 54, 1923.
 11. REA, C.: British Basidiomycetae. p. 449, p. 709, p. 743, 1922.
 12. SACCARDO, P. A.: Sylloge Fungorum. Vol. V, p. 374, 1887.
 13. SACCARDO, P. A.: Sylloge Fungorum. Vol. VI, p. 779, 1888.
 14. SACCARDO, P. A.: Sylloge Fungorum. Vol. XXI, p. 429, 1912.
 15. SMITH, W. G.: Synopsis of the British Basidiomycetes. p. 95, 1905.
-

歐文論説摘要

故 工藤祐舜：臺灣ノ紅樹林

臺灣ノ紅樹林ハ其北部及西部海岸ニ發達シ、三科六種アル。高雄灣デハたかをこひるぎ・おほばひるぎ・あかばなひるぎ・ひるぎもどき及びひるぎだましノ五種ガアル。ひるぎだましハ灣内ニ至ル所ニアリ又可ナリノ喬木トナル。支柱根ハおほばひるぎニヨク發達シ、又呼吸根ハひるぎだましニ見事デアル。所謂膝狀ノ呼吸根ハあかばなひるぎニ發見サレタ。生長シタ胚軸ハおほばひるぎ・あかばなひるぎ・たかをこひるぎ等デ觀察サレタ。新竹州ノ紅毛デハ、河口ニひるぎだましトめひるぎトガ發達シテ居ル。コ、ノひるぎだましハ低イ分枝セル灌木狀デ満潮時ハ海水ノ下ニナル。又めひるぎハ小喬木デ、見事ナ長イ胚軸ヲツケテ居ル。北部基隆港ヤ富貴角ニモアルガ只めひるぎカラ成リ、貧弱デアル。(昭和六年十一月十六日、臺北帝國大學理農學部植物學教室ニ於テ)

逸見武雄：數種ノ日本産菌類ニ關スル記録

本論文ニ於テ筆者ハ最近興味ヲ感ゼシ數種ノ菌類ニ就キ簡單ナル記録ヲ發表セント欲ス。

(1) *Clavaria Miyabeana* Ito ベになぎなたたけ

本菌ハ北海道ニ於テ採集セラレシ標本ニ基キ今井三子氏ガ 1930 年ニ初メテ公表シタル新種ニシテ、筆者ハ京都ニ於テ二回ニ亘リ採集セラレシ標本ヲ藏ス。子實體ハ赤紅色ニシテ美麗ナリ。

(2) *Clavaria amethystinoides* PECK. むらさきははきたけもどき (新稱)

本菌ハむらさきははきたけニ似タレドモ、其色淡肉色又ハ淡紫褐色ナルヲ異ニス。高サ 1 乃至 6 cm. ニシテ分岐ス。

(3) *Clavaria acuta* Sow. しろやりたけ

本菌ハ 1929 年 9 月北海道ニ於テ採集セラレタルモノガ、本邦ニ於ケル記録ノ嚆矢トス。筆者モ亦同年 10 月京都府下ニテ採集セラレシ標本ヲ有ス。本菌ハ高サ 1-2.5 cm. ノ纖細ナル白色子實體ヲ形成ス。

(4) *Pleurotus porrigens* (PERS.) Fr. すぎひらたけ (新稱)

本菌ハ歐洲ニ於テ針葉樹ノ切株ニ發生スルコトヲ報ゼラレタルモノニシテ、京都附近ニ於テハ杉ノ腐朽株又ハ生活力尙旺盛ナル杉ノ樹皮ニ發生ス。子實體ハ雪白色ナリ。

(5) *Femsjonia luteo-alba* Fr. にかはたけ (新稱)

本菌ハ腐朽セル樹木ノ樹皮ニ生ズルモノニシテ、濕潤ナル状態ノ下ニテ膠質黃色ニシテ無柄ナリ。特徴アル胞子ニヨリテ容易ニ檢定シ得。

(6) *Clavaria pyxidata* PERS. ふさひめははきたけ (新稱)

本菌ハ高サ 5 乃至 6 cm. ニシテ分岐シ、蒼白色ナレドモ淡黄褐色又ハ淡赭褐色ニ變ズ。枝端小盃狀ヲ呈シ其周圍ヨリ更ニ小枝ヲ生ズルヲ特徴トス。

(7) *Clavaria Kunzei* FR. しろひめははきたけ

雪白色ニシテ分岐セル子實體ヲ生ズ。本邦ニ於ケル最初ノ記録ハ今井三子氏ニヨリ 1929 年ニ發表セラレタルモノニシテ、氏ハ北海道産ノ標本ヲ檢セリ。筆者モ亦同年京都府下二箇所ニテ採集セラレタル標本ヲ藏ス。

本田正次： やつしろらんノ學名ニ就テ

やつしろらんハ 1909 年ニ牧野博士ガ肥後國八代産ノモノヲ檢シテ *Didymoplexis pallens* GRIFFITH ト云フ印度ヒマラヤ産ノモノニ當テ、發表サレタ一種ノ寄生菌デ、花後ソノ花梗ガ法外ニ長クナルト云フ奇異ノ習性ヲ有スルヲ以テ知ラレタモノデアル。其ノ後紀州ニ産スルコトガ知ラレテ居タガ、最近適々紀州西牟婁郡岩田村産ノモノヲ同地ノ櫻山嘉一氏カラ標品ヲ送ツテ貰ヒ、精檢シタ結果、花ガ *D. pallens* ニ比シテ遙カニ大キクテ、ソノ數ガ少イ事、苞ガ大キイ事、花色ガ暗褐紫色ヲ呈スル事ナドヲ以テ明ニ別種ト認メタノデ、コレニ *Didymoplexis nipponica* HONDA ト云フ學名ヲ附スルコトニシタ。又本種ハ彼ノ *D. pallens* ノ様ニ竹ノ根ニ寄生スルコトナク、恐ラク或ル常緑闊葉樹種ノ根ニ寄生スルノデアラウト云フ事モ採集者櫻山氏ノ詳細ナ觀察調査ニヨツテ明カデアル。

江本義數： 變形菌ノ一新種ニ就テ

昭和六年春季ヨリ、余ハ朽木縣日光東照宮生物調査會ノ委嘱ニヨリ、日光山ニ産スル變形菌類ヲ採集調査シタルガ、其内ニ未ダ記載セラレザル新種ト思ハル、モノヲ得タリ。

Enteridium Yabeanum sp. nov.

變形體ハ黑色ニシテ扁平ナル團塊ヲナス。胞子囊ハ融合シテ著合胞子囊 (Aethalium) ヲ形成ス、扁平ニシテ暗褐色 (Bister—Natal brown)*、不規則ナル形ヲナシ、厚サ約 3—8 mm.、直徑 2—23.3 cm. (第一圖)。胞子囊壁ハ薄膜ニシテ淡褐色ナリ。Hypothallus ハ甚ダヨク發達シ強靱ナル褐色ノ膜ヲナス。細毛體ハ之ヲ缺キ、多數ノ胞子囊ノ融合ニヨリ、各胞子囊ノ横壁ハ穴ヲ以テ相通ジ、以テ擬細毛體 (Pseudokapillitium) ヲ生ゼリ (第二圖)。胞子ハ團塊ヲナセル時ハオリイブ色 (Light-brownish olive—Brownish olive)* ヲ呈スルモ、鏡下ニテ單一ノモノヲ檢セバ無色ナリ、直徑 6—7.5 μ 球形ニシテ、其全表面ニハ疣狀突起アリ (第三圖)。

腐朽セルつか材上ニ發生ス。昭和六年八月、朽木縣日光湯本ニテ採集。

今井三子： 昇龍窪科ノ分類ニ對スル一寄與

頭部頭狀、帽狀或ハ鞍狀ヲ呈シ有柄ニシテ、唇狀ニ開口スル子囊ヲ有スル子實體ニ