

STUDIES ON *CERCOSPORA* AND ALLIED GENERA OF TAIWAN (III)

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[Abstract] This study includes descriptions and illustrations of two species of *Cercospora* and seven species of *Pseudocercospora* previously recorded by K. Sawada in Taiwan. New names and latin diagnosis were given for the species: *Cercospora alocasiae* sp. nov., *C. bombacis* sp. nov., *Pseudocercospora actinostemmae* sp. nov., *P. anisomelicola* sp. nov., *P. campanumoeae* sp. nov., *P. diospyri-erianthae* sp. nov., *P. diospyri-morrisianae* sp. nov., *P. giranensis* sp. nov., and *P. gymnopetali* sp. nov.

[Key Words] Taiwan, *Cercospora*, *pseudocercospora*, Sawada, new species, Latin diagnosis.

臺灣產尾子菌屬及其類似屬之研究(III)

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〔摘要〕本篇報導台灣產尾子菌屬 (*Cercospora*) 兩種及假尾子菌屬 (*Pseudocercospora*) 七種: *Cercospora alocasiae* sp. nov., *C. bombacis* sp. nov., *Pseudocercospora actinostemmae* sp. nov., *P. alternantherae-nodiflorae* comb. nov., *P. anisomelicola* sp. nov., *P. campanumoeae* sp. nov., *P. diospyri-erianthae* sp. nov., *P. diospyri-morrisianae* sp. nov., *P. giranensis* sp. nov. 及 *P. gymnopetali* sp. nov., 皆為澤田氏 (Sawada) 在台灣不合法發表之新種, 本篇依英國 Deighton 氏之新分類系統給予訂正及附拉丁文描述。

〔關鍵語〕: 台灣, 尾子菌, 假尾子菌, 新種, 新組合種, 拉丁文。

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INTRODUCTION

Chupp (1) have recorded 3419 species of *Cercospora* sensu lato in his Monograph of the Fungus Genus *Cercospora* and more than 240 of the species were recorded in Taiwan (3). Majority of the species were recorded by Sawada (4,5,6,7), among which there are many new species that have not been given a latin diagnosis and thus invalidly published. Therefore, we have reviewed some of the Sawada's collections deposited in the Herbarium of Department of Plant Pathology and Entomology, National Taiwan University, Taipei (abbreviated as 'Herb NTU-PPE' in the text). New combinations were made or/and latin diagnosis were given for the species where necessary. The taxonomic studies on the species described in the paper were based on Deighton's system (2).

DESCRIPTIONS OF SPECIES

1. *Cercospora alocasiae* [Sawada ex] Goh et Hsieh, sp. nov. **Fig. 1.**

≡ *Cercospora alocasiae* Sawada, Taiwan Agr. Rev. 38: 693 (1942), also Taiwan Agr. Res. Inst, Rept. 85: 98 (1943), nomen non rite publicatum (sine descriptione latina).

Maculae indistinctae vel distinctae, demum sordidogriseae vel pallide alutaceae, faciens concentricus annulus, 10-20 mm latae. Caespituli amphigeni, atrati, effusi. Stromata nulla vel paucicellulis atrobrunneis composita. Conidiophora exiliter vel usque 55 vel plus dense fasciculata, brunnea, uniformia in coloratione, pallidiora ad apicem, geniculata cum cicatricibus conspicue incrassatibus juxta apicem, non ramosa, cicatricibus conspicue incrassatibus juxta apicem, non ramosa, manifeste multiseptata, uniformia in latitudine, 50-200 μm x 4-5.5 μm , Conidia hyalina, acicularia vel interdum obclavata, illa brevior cylindrica, recta vel curvata, arcte septata, acuta vel subobtusa ad apicem, truncata ad basim, cum hilo conspicue incrassato, 30-200 μm x 2-4 μm .

Habitat: In foliis vivis *Alocasiae macrorrhizae* Schott. (Araceae), Dec. 19, 1920, Taipei, leg. K. Sawada, typus in Herb. NTU-PPE, Taipei, Taiwan, R.O.C.

Leaf spots indistinct or distinct, later dingy grey to pale tan, circular or forming concentric rings, 10-20 mm wide. Fruiting amphigenous, dark, effuse. Stromata none or several dark brown cells. Conidiophores meagre or dense in a divergent fascicle (up to 55 or more stalks), brown, uniform in colour, paler at apex, gen-

iculate near the apex with conspicuously thickened scars, not branched, plainly multiseptate, uniform in width, 50-200 μm x 4-5.5 μm . Conidia hyaline, acicular or sometimes obclavate, shorter ones cylindric, straight to curved, closely septate, tip acute or subobtuse, base truncate, hilum conspicuously thickened, 30-200 μm x 2-4 μm .

Habitat: On leaves of *Alocasia macrorrhiza* Schott. (Araceae).

Specimen examined: Specimen in Herb. NTU-PPE, Taipei, leg. K. Sawada, Dec. 19, 1920, Taipei, Taiwan.

Distribution: Known only in Taiwan.

Note: A portion of the Sawada's collection is deposited in the U. S. D. A. Mycological Herbarium.

2. *Cercospora bombacis* Goh et Hsieh, sp. nov. Fig. 2.

Maculae disseminatae, orbiculares vel irregulares, 2-5 mm latae, primo constanter brunneae, demum centro griseo, margine indistincto cinctae. Caespituli amphigeni. Mycelium secundarium absens. Stromata parva vel usque 60 μm lata, subglobosa, atrobrunnea. Conidiophora fasciculata, exile vel usque 40 in fasciculo densa, pallide brunnea, apicem versus pallidiora, uniformia in latitudine, interdum ramosa, geniculata, multiseptata, truncata ad apicem, 50-180 μm x 4-6.5 μm ; cicatrices conidiales conspicue incrassatae. Conidia acicularia, hyalina, recta vel leniter curvata, arcte multiseptata, acuta ad apicem, truncata ad basim cum hilo conspicue incrassato, 50-120 μm x 3-4 μm .

Habitat: In foliis vivis *Bombacis ceibae* L. (Bombacaceae), Dec. 12, 1919, Peitou, Changhua Hsien, leg. K. Sawada, typus in Herb. NTU-PPE, Taipei, Taiwan, R.O.C.

Leaf spots scattered, circular to irregular, 2-5 mm wide, at first uniformly brown, finally grey at centre with obscure border. Fruiting amphigenous. Secondary mycelium absent. Stromata slight or up to 60 μm wide, subglobose, dark brown. Conidiophores fasciculate, meagre or may up to about 40 in a dense fascicle, pale brown, paler towards the apex, uniform in width, sometimes branched, geniculate, multiseptate, truncate at apex, 50-180 μm x 4-6.5 μm ; conidial scars conspicuously thickened. Conidia acicular, hyaline, straight or slightly curved, closely multiseptate, acute at apex, truncate at base with a thickened hilum, 50-120 μm x 3-4 μm .

Habitat: On leaves of *Bombax ceiba* L. (Bombacaceae) •

Specimen examined: Specimen in Herb. NTU-PPE, Taipei, leg. K. Sawada, Dec. 12, 1919, Peitou, Changhua Hsien, Taiwan, holotype.

Note: In Sawada's manuscript (No. 15), he proposed *Cercospora bombacis* for this fungus. Nevertheless, S. Katsuki (Descr. Catal. Taiwan Fungi XI: 222) came to the conclusion that this fungus is the same as *Cercospora pachirae* Chupp et Muller after comparing with the description of the latter species. However, after careful observation of Sawada's original specimen, we concluded that the name *Cercospora bombacis* should pertain to this fungus since it is different from *C. pachirae* Chupp et Muller by its conidiophores which are dark-coloured, plainly multiseptate, geniculate, wider and longer; conidia which are acicular, hyaline; and most importantly, the conidial scars are conspicuously thickened.

3. *Pseudocercospora actinostemmae* [Sawada ex] Goh et Hsieh, sp. nov. Fig. 3.
≡ *Cercospora actinostemmae* Sawada, Taiwan Agr. Res. Inst. Rept. 86: 165 (1943), nomen non rite publicatum (sine descriptione latina).

Maculae amphigenae, disseminatae, angulares, griseo-olivaceae vel brunneae, 2-4 mm latae. Caespituli manifeste amphigeni. Stromata parva. Conidiophora 2-15 in fasciculo, divergentia, pallide olivacea, uniformia in coloratione, recta vel leniter curvata, interdum ramosa, raro geniculata, 1-5 septata, constricta ad septa, conica vel rotundata ad apicem, 20-60 μm x 3-4.5 μm ; cicatrices conidiales non incrassata. Conidia cylindrica vel obclavata, plerumque recta, 3-9 septata, obtusa ad apicem, basi in hilum truncatum non incrassatum breviter attenuata, 30-70 μm x 2.5-4 μm .

Habitat: In foliis vivis *Actinostemmae lobati* (Maxim.) Maxim. var. *typicae* Makino (Cucurbitaceae), Dec. 7, 1919, Taipei, leg. K. Sawada, typus in Herb. NTU-PPE, Taipei Taiwan.

Leaf spots amphigenous, scattered, angular, greyish olivaceous to brown, 2-4 mm wide. Fruiting plainly amphigenous. Stromata small. Conidiophores 2-15 in a fascicle, divergent, pale olivaceous, uniform in colour, straight or slightly curved, sometimes branched, rarely geniculate, 1-5 septate, constricted at septa, conic or rounded at apex, 20-60 μm x 3-4.5 μm ; conidial scars unthickened. Conidia cylindrical or obclavate, mostly straight, 3-9 septate, obtuse at apex, base short obconically truncate, hilum unthickened.

Habitat: On leaves of *Actinostemma lobatum* (Maxim.) Maxim. var. *typica* Makino (Cucurbitaceae).

Specimen examined: Specimen in Herb. NTU-PPE, Taipei, leg. K. Sawada, Dec. 7, 1919, Taipei, Taiwan.

Distribution: Known only in Taiwan.

[Sawada ex] Goh et Hsieh, sp. nov. Fig. 4.

≡ *Cercospora anisomelicola* Sawada, Taiwan Agr. Res. Inst. Rept. 86: 166 (1943), nomen non rite publicatum (sine descriptione latina).

Maculae in epiphyllis indistinctae, flavidae, angulares, per venas limitatae, 1-7 mm latae. Caespituli hypophylli, effusi, atro-olivacei. Stromata parva, brunnea, subglobosa. Conidiophora 5-12 in fasciculo, per stoma emergentia, pallide vel modice olivaceo-brunnea, pallidiora ad apicem, cylindrica, plerumque recta, raro geniculata, 1-4 septata, constricta ad septa, non ramosa, conico-truncata vel rotundata ad apicem, 30-60 μm x 4-5.5 μm ; cicatrices conidiales non incrassatae. Conidia cylindrica vel cylindro-obclavata, plerumque recta, pallide olivacea vel olivaceo-brunnea, 1-8 septata, obtusa ad apicem, obconico-truncata ad basim, cum hilo non incrassato, 40-90 μm x 4-5 μm .

Habitat: In foliis vivis *Anisomelei indicae* (L.) Ktze. (Labiataceae), Sep. 7, 1919, Taipei, leg. K. Sawada, typus in Herb. NTU-PPE, Taipei, Taiwan, R.O.C.

Leaf spots on upper surface indistinct yellowish angular areas, vein-limited, 1-7 mm wide. Fruiting hypophyllous, effuse, dark-olivaceous. Stromata small, brown, subglobular. Conidiophores 5-12 in a fascicle, emerging through a stoma, pale to medium olivaceous brown, paler at apex, cylindrical, usually straight, rarely once geniculate, 1-4 septate, constricted at septa, not branched, conically truncate or rounded at apex, 30-60 μm x 4-5.5 μm ; conidial scars unthickened. Conidia cylindrical to cylindro-obclavate, mostly straight, pale olivaceous to pale olivaceous brown, 1-8 septate, obtuse at apex, obconically truncate at base with an unthickened hilum, 40-90 μm x 4-5 μm .

Habitat: On leaves of *Anisomeles indica* (L.) Ktze. (Labiataceae).

Specimen examined: Specimen in Herb. NTU-PPE, Taipei, leg. K. Sawada, Sep. 7, 1919, Taipei, Taiwan, holotype.

Distribution: Known only in Taiwan.

Note: A part of the type is deposited in the U. S. D. A. Mycological Herbarium.

5. *Pseudocercospora campanumoeae* [Sawada ex] Goh et Hsieh, sp. nov. Fig. 5.

≡ *Cercospora campanumaeae* Sawada, Formosa Agr. Res. Inst. Rept. 86: 167 (1943), nomen non rite publicatum (sine descriptione latina).

Maculae amphigenae, disseminatae, angulares, 2-6 mm latae, atrogriseae. Caespituli praecipue hypophylli. Stromata nulla vel admodum paucicellulis brunneis composita. Conidiophora 2-10 in fasciculo, per stoma emergentia, brunnea, pallidiora ad apicem, cylindrica, 3-5 septata, constricta ad septas, ramosa, interdum geniculata, subtruncata ad apicem, 50-210 μm x 4-5.5 μm . Cicatrices non incrassatae

et inconspicuae. Conidia cylindro-obclavata, pallide olivacea, subrecta vel curvata, 3-9 septata, obtusa ad apicem, basi in hilum truncatum non incrassatum breviter attenuata, 27-80 μm x 3-4.5 μm .

Habitat: In foliis vivis *Campanumoeae javanicae* Blume (Campanulaceae), Oct. 29, 1907, Taichung, leg. K. Sawada, holotypus in Herb. NTU-PPE Taipei, Taiwan, R.O.C.

Leaf spots amphigenous, scattered, angular, 2-6 mm wide, dark grey in colour. Fruiting chiefly hypophyllous. Stromata lacking or a few brown cells. Conidiophores 2-10 in a fascicle, emerging through the stomata, brown, paler at the apex, cylindrical, 3-5 septate, constricted at the septa, branched, occasionally geniculate, subtruncate at the apex, scars unthickened and inconspicuous, 50-210 μm x 4-5.5 μm . Conidia cylindro-obclavate, pale olivaceous, substraight to curved, 3-9 septate, obtuse at the apex, short obconically truncate at the base, hilum unthickened, 27-80 μm x 3-4.5 μm .

Habitat: On leaves of *Campanumoea javanica* Blume (Campanulaceae).

Specimen examined: Specimen in Herb. NTU-PPE. Taipei, leg. K. Sawada, Oct. 29, 1907, Taichung, Taiwan, holotype.

Note: The species epithet of this fungus given in the original citation by Sawada is *campanumaeae*, since it is considered to be a spelling mistake, as the species epithet of the host plant is *campanumoea*, it would be better to be corrected as *campanumoeae*.

6. *Pseudocercospora diospyri-erianthae* [Sawada ex] Goh et Hsieh, sp. nov. Fig. 6.
≡ *Cercospora diospyri-erianthae* Sawada, Taiwan Agr. Res. Inst. Rept. 85: 103 (1943), nomen non rite publicatum (sine descriptione latina).

Maculae suborbiculares, rufulo-brunneae, margine atro cinctae, 1.5-6 mm latae. Caespituli praecipue hypophylli. Mycelium secundarium absens. Stromata bene evoluta, globosa, atrobrunnea, 40-84 μm lata. Conidiophora, dense fasciculata, divergentia, subhyalina vel pallide olivacea, cylindrica, uniformia in coloratione et latitudine, recta, curvata vel undulata, raro septata vel geniculata, interdum ramosa, truncata vel rotundata ad apicem, 10-25 μm x 2-4 μm , cicatrices conidiales non incrassatae et inconspicuae. Conidia obclavata vel cylindro-obclavata, recta vel leniter curvata, subhyalina vel flavido-olivacea, 3-9 septata, subacuta ad apicem, subtruncata vel obconico-truncata ad basim, hilo indistincto, 35-90 μm x 2.5-3.5 μm .

Habitat: In foliis vivis *Diospyri erianthae* Champ. ex Benth., (Ebenaceae), May 24, 1926, Keelung, leg. K. Sawada, holotypus in Herb. NTU-PPE, Taipei,

Taiwan. R.O.C.

Leaf spots suborbicular, reddish brown, with a black margin, 1.5-6 mm wide. Fruiting chiefly hypophyllous. Secondary mycelium absent. Stromata well developed, globular, dark brown, 40-84 μm wide. Conidiophores densely fasciculate, divergent, subhyaline to pale olivaceous, cylindrical, uniform in colour and width, straight to curved or undulate, rarely septate or geniculate, sometimes branched, truncate or rounded at apex, 10-25 μm x 2-4 μm , conidial scars unthickened and inconspicuous. Conidia obclavate to cylindro-obclavate, straight to mildly curved, subhyaline to yellowish olivaceous, 3-9 septate, subacute at apex, subtruncate or obconically truncate at base, hilum inconspicuous, 35-90 μm x 2.5-3.5 μm .

Habitat: On leaves of *Diospyros eriantha* Champ. ex Benth., (Ebenaceae).

Specimen examined: Specimen in Herb. NTU-PPE, Taipei, leg. K. Sawada, May 24, 1926, Keelung, Taiwan, R.O.C. holotype.

Distribution: Known only in Taiwan

Note: A part of the Sawada cotype is deposited in the U. S. D. A. Mycological Herbarium.

7. *Pseudocercospora diospyri-morrisianae* [Sawada ex]

Fig. 7.

Goh et Hsieh, sp. nov.

\equiv *Cercospora diospyri-morrisianae* Sawada, Taiwan Agr. Res. Inst. Rept.

85: 103 (1943), nomen non rite publicatum (sine descriptione latina).

Maculae indistinctae in epiphylo, sed pallide fuliginosae et angulares in hypophyllo, 307 mm in diametro. Caespituli hypophylli, parce effusi. Stromata nulla. Conidiophora laxae fasciculatae vel ex hyphis procumbentes lateraliter singulatim oriunda, olivacea, simplicia vel ramosa, raro geniculata, 0-2 septata, conico-truncata ad apicem, 5-49 μm longa, 2.5-4.5 μm lata; cicatrices conidiales indistinctae. Conidia subhyalina, subcylindrica vel anguste obclavata, subrecta vel curvata, 3-7 septata, subacuta vel subobtusa ad apicem, obconico-truncata ad basim, hilo non incrassato, 40-90 μm x 2-3 μm .

Habitat: In foliis vivis *Diospyri morrisianae* Hance (Ebenaceae), July 25, 1926, Yilan, leg. K. Sawada, holotypus in Herb. NTU-PPE, Taipei, Taiwan, R.O.C.

Leaf spots indistinct on upper surface, but appearing as pale fuliginous angular patches at the lower surface, 3-7 mm in diameter. Fruiting hypophyllous, sparingly effuse. Stromata absent. Conidiophores loosely fasciculate: at the stomatal opening or arise singly as side branches of the procumbent hyphae, olivaceous, simple or branched, rarely geniculate, 0-2 septate, conically truncate at the apex, conidial

scars indistinct, 5-49 μm long, 2.5-4.5 μm wide. Conidia subhyaline, subcylindrical or narrowly obclavate, substraight or curved, 3-7 septate, subacute or subobtuse at the apex, obconically truncate at the base, hilum unthickened, 40-90 μm x 2-3 μm .

Habitat: On leaves of *Diospyros morrisiana* Hance (Ebenaceae).

Specimen examined: Specimen in Herb. NTU-PPE. Taipei, leg. K. Sawada, July 25, 1926, Yilan, holotype.

Distribution: Known only in Taiwan.

Note: A part of the Sawada cotype is deposited in the U. S. D. A. Mycological Herbarium.

8. *Pseudocercospora giranensis* [Sawada ex] Goh et Hsieh, sp. nov. Fig. 8.

\equiv *Cercospora giranensis* Sawada, Descr. Catalogue of Formosan Fungi 9: 170 (1943), nomen non rite publicatum (sine descriptione latina).

Maculae suborbiculares, absque margine distincto, purpureo-brunneae, 5-7 mm latae. Caespituli distincte hypophylli, fuliginosi, effusi. Stromata nulla. Mycelium secundaria absens. Conidiophora 3-10 in fasciculo, modice brunnea, leniter pallidiora ad apicem, cylindrica, plerumque recta, 5-7 septata, non ramosa, raro geniculata vel denticulata, conico-truncata ad apicem, non incrassatis cicatricibus, 40-200 μm x 4-5 μm . Conidia cylindrica vel cylindro-obclavata, pallide olivacea, plus minusve curvata, 3-5 septata, obtusa ad apicem, cellula basali in hilum truncatum non incrassatum breviter attenuata, 20-80 μm x 4-6 μm .

Habitat: in foliis vivis *Glochidionis fortunei* Hance, (Euphorbiaceae), May 23, 1913, Taipei, leg. K. Sawada, holotypus in Herb. NTU-PPE, Taipei, Taiwan, R.O.C.

Leaf spots suborbicular, without definite margin, purplish brown, 5-7 mm in diameter. Fruiting strictly hypophyllous, sooty, effuse. Stromata absent. Secondary mycelium absent. Conidiophores 3-10 in a fascicle, medium brown, slightly paler at the apex, cylindrical, mostly straight, 5-7 septate, not branched, rarely geniculate or denticulate, conically truncate at apex with an unthickened scar, 40-200 μm x 4-5 μm . Conidia cylindrical or cylindro-obclavate, pale olivaceous, more or less curved, 3-5 septate, obtuse at the apex, the basal cell shortly tapered to a truncate unthickened hilum, 20-80 μm x 4-6 μm .

Habitat: On leaves of *Glochidion fortunei* Hance, (Euphorbiaceae).

Specimen examined: Specimen in Herb. NTU-PPE. Taipei, leg. K. Sawada, May 23, 1913, Taipei, Taiwan, holotype.

9. *Pseudocercospora gymnopetali* [Sawada ex] Goh et Hsieh, sp. nov. Fig. 9.

≡ *Cercospora gymnopetali* Sawada, Formosa Agr. Res. Inst. Rept. 86: 170 (1943), nomen non rite publicatum (sine descriptione latina).

Maculae angulares, disseminatae, initio viridi-flavidae, demum atrogriseae, 2-6 mm latae. Caespituli praecipue hypophylli. Mycelium secundarium absens. Stromata subglobosa, substomatalia vel erumpentia, brunnea, 18-65 μm lata. Conidiophora dense fasciculata, olivacea, cylindrica, recta vel leniter curvata ad apicem, non ramosa, raro geniculata, 0-2 septata truncata ad apicem, 10-40 μm x 2-3 μm . Cicatrices conidiales non incrassatae et inconspicuae. Conidia pallide olivacea, acicularia vel filiformia, recta vel leniter curvata, 5-9 septata, non constricta, obtusa ad apicem, truncata ad basim, cum hilo non incrassato, 40-110 μm x 2.5-3 μm .

Habitat: In foliis vivis *Gymnopertali chinensis* Merr. (Cucurbitaceae), Aug. 17, 1920, Taipei, leg. K. Sawada, holotypus in Herb. NTU-PPE, Taipei, Taiwan, R.O.C.

Leaf spots angular, scattered, at first greenish yellow, then turn greyish yellow, finally becoming dark grey in colour, 2-6 mm in diameter. Fruiting chiefly hypophyllous. Secondary mycelium absent. Stromata subglobular, substomatal or erumpent, brown, 18-65 μm in width. Conidiophores densely fasciculate, olivaceous, cylindrical, straight or slightly curved at the apex, not branched, rarely geniculate, 0-2 septate, truncate at the apex, conidial scars unthickened and inconspicuous, 10-40 μm x 2-3 μm . Conidia pale olivaceous, acicular or filiform, straight or slightly curved, 5-9 septate, not constricted, obtuse at the apex, truncate at the base, hilum unthickened, 40-110 μm x 2.5-3 μm .

Habitat: On leaves of *Gymnopetalum chinense* Merr. (Cucurbitaceae).

Specimen examined: Specimen in Herb. NTU-PPE. Taipei, leg. K. Sawada, Aug. 17, 1920, Taipei, Taiwan, holotype.

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LITERATURE CITED

1. Chupp, C. 1953. A monograph of the fungus genus *Cercospora*. Ithaca, New York. 667pp.
2. Deighton, F. C. 1976. Studies on *Cercospora* and allied genera VI. *Pseudocercospora* Speg., *Pantospora* Cif. and *Cercoseptoria* Petr. Mycol. Pap. 140. C. M. I. Kew, Surrey.
3. List of plant diseases in Taiwan. 1979. Plant Prot. Soc. R.O.C. 404pp.
4. Sawada, K. 1928. Descriptive catalogue of the Formosan Fungi. Dept. Agr. Gov't. Res. Inst. Formosa. Special Fungi. 4: 106.
5. Sawada, K. 1943. D. C. F. F., *ibid* 8: 98, 103, 104.
6. Sawada, K. 1943. D. C. F. F., *ibid* 9: 165-170.
7. Sawada, K. 1959. D. C. F. F., *ibid* 11: 222.

EXPLANATION OF FIGURES

- Fig. 1. *Cercospora alocasiae*. A, Fascicle of conidiophores; B, Conidia.
- Fig. 2. *Cercospora bombacis*. A, Fascicle of conidiophores; B, Conidia.
- Fig. 3. *Pseudocercospora actinostemmae*. A, Fascicle of conidiophores; B, Conidia.
- Fig. 4. *Pseudocercospora anisomelicola*. A, Fascicle of conidiophores; B, Conidia.
- Fig. 5. *Pseudocercospora campanumoeae*. A, Fascicle of conidiophores; B, Conidia.
- Fig. 6. *Pseudocercospora diospyri-erianthae*. A, Fascicle of conidiophores; B, Conidia.
- Fig. 7. *Pseudocercospora diospyri-morrisianae*. A, Loose fascicle of conidiophores at stomatal B, procumbent hypha arising from base of fascicle bearing secondary conidiophores; C, Conidia.
- Fig. 8. *Pseudocercospora giranensis*. A, Fascicle of conidiophores. B, Conidia.
- Fig. 9. *Pseudocercospora gymnopetali*. A, Fascicle of conidiophores; B, Conidia.

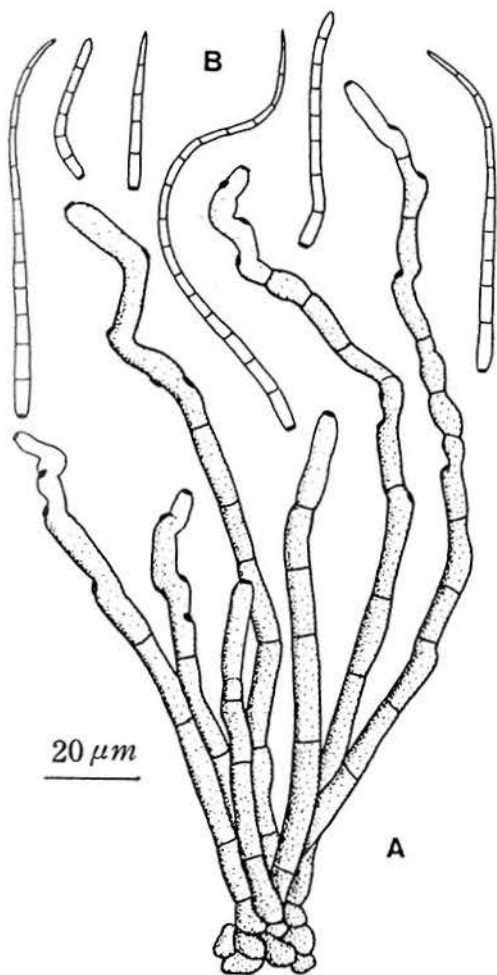


Fig. 1

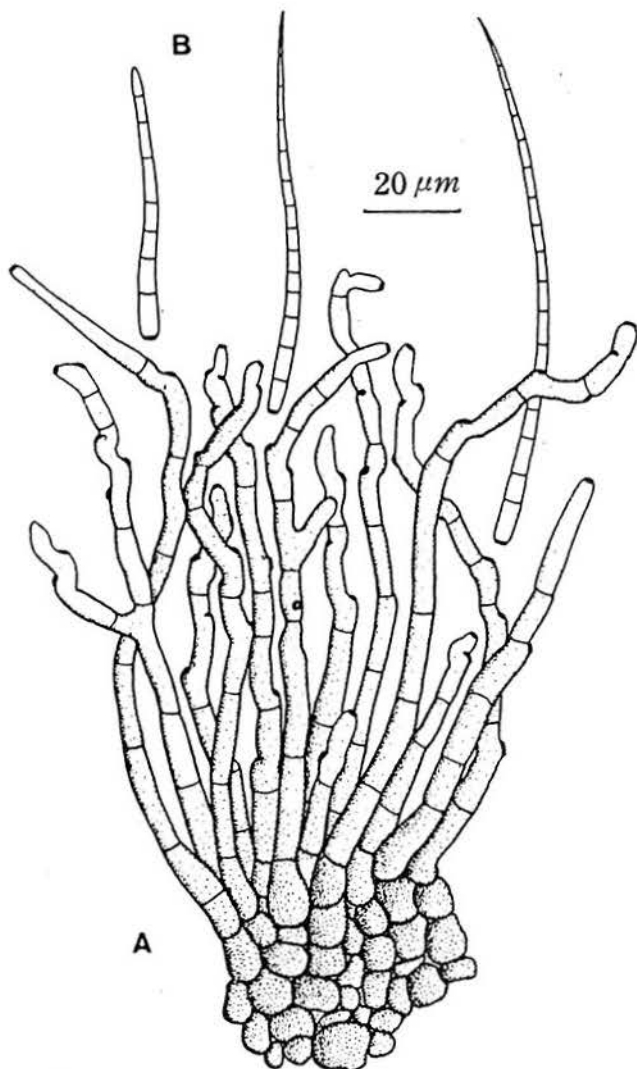


Fig. 2

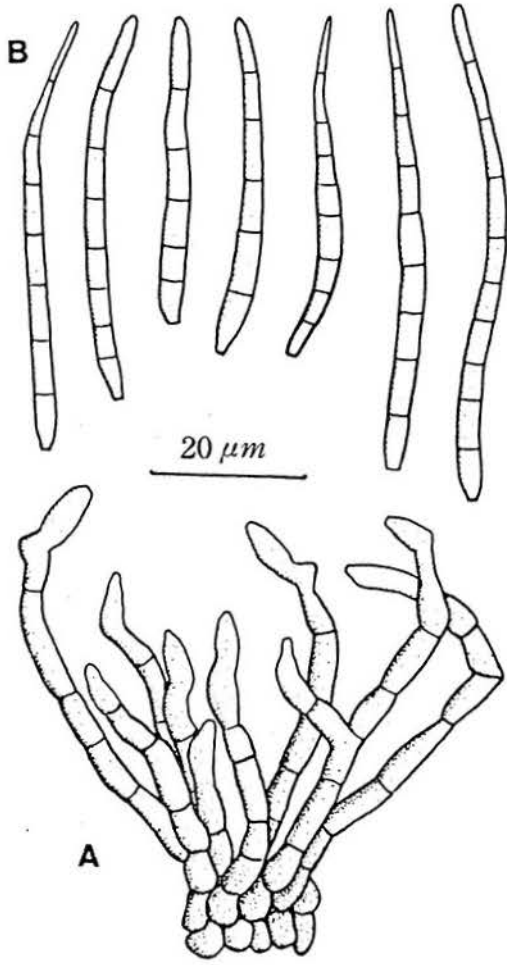


Fig. 3

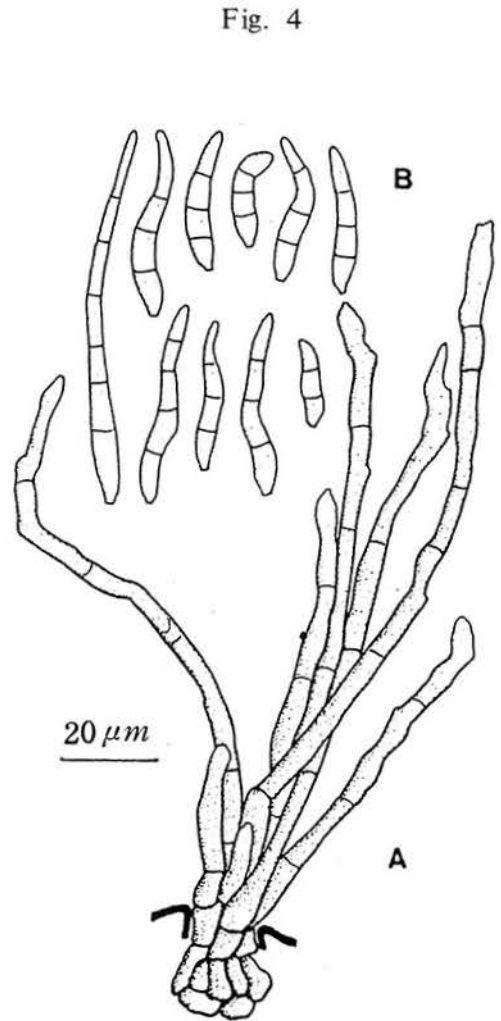


Fig. 4

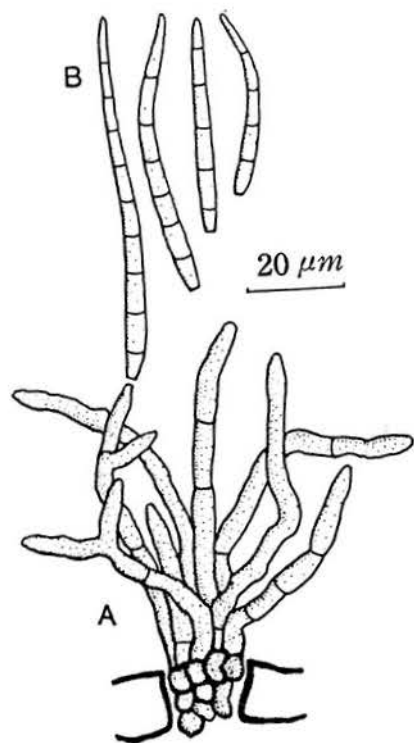


Fig. 5

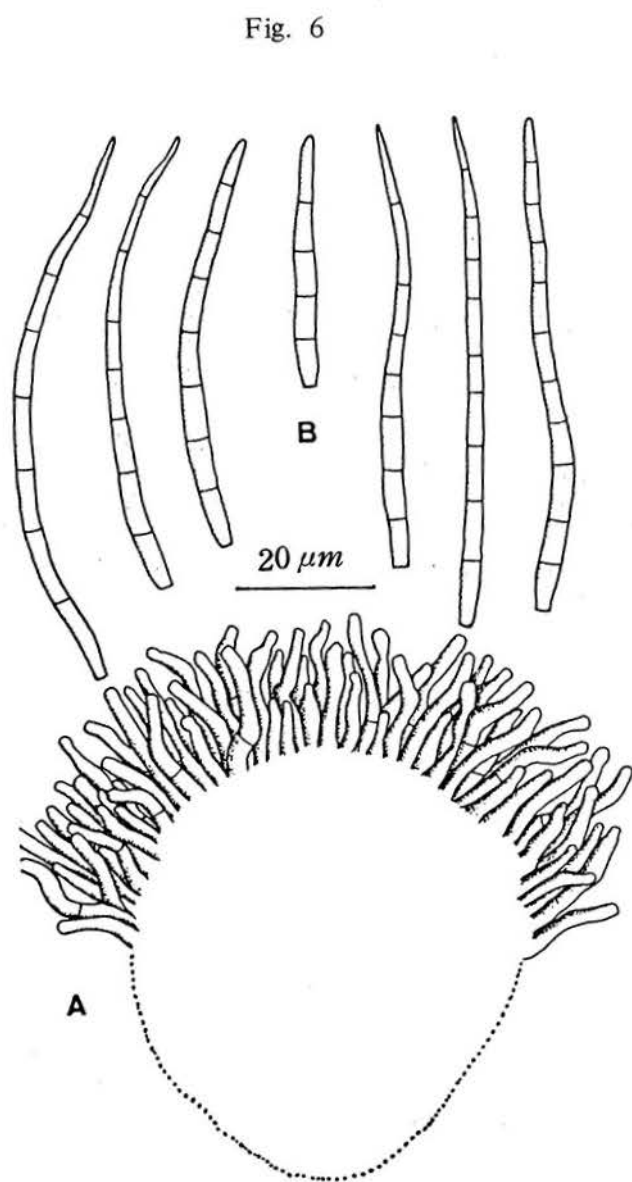


Fig. 6

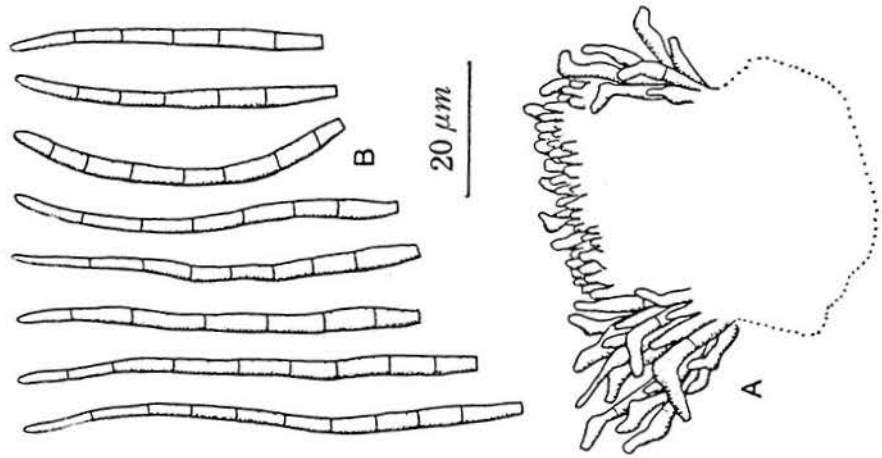


Fig. 9

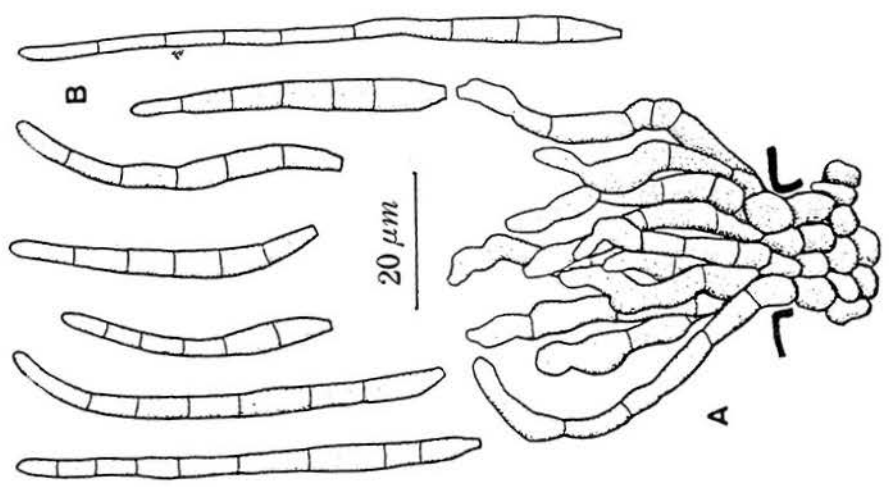


Fig. 8

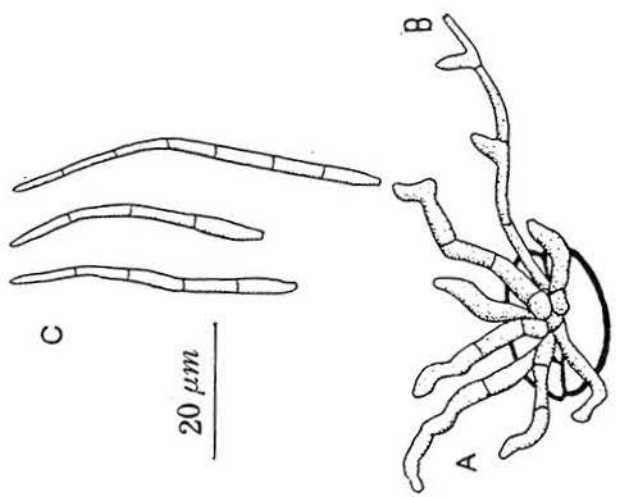


Fig. 7