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CERCOSPORA FROM FORMOSA I

BY

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(山 本 和 太 郎)

(With three text figures)

1. ***Cercospora Bischofiae*** sp. nov. (Fig. 1, Nos. 1 & 2)

Maculis amphigenis, laxe irregulariterque sparsis, plerumque orbicularibus vel suborbicularibus, raro angularibus, plus minusve indefinitis, 2–10 mm diam., rufo-fuscis vel sordide purpureo-brunneis ; caespitulis hypophyllis, raro epiphyllis, laxe dispersis, inconspicuis; conidiophoris plerumque binis vel compluribus e stomatibus oriundis, simplicibus, raro ramulis 1–2 brevibus instructis, rectis vel parum curvatis, leniter geniculatis, 1–9-septatis, pallide olivaceis, 16–72 μ longis, 3–4.5 μ latis; conidiis obclavato-acicularibus vel anguste cylindraceis, rectis vel plus minusve curvatis, 1–9-septatis, dilutissime olivaceis, 23–81 μ longis, 2.3–3.6 μ latis.

Hab. in foliis vivis *Bischofiae javanicae* BLUME; Taihoku, Formosa, 11. XI, 1933, leg. W. YAMAMOTO.

2. ***Cercospora Catappae*** HENN. in ENGL. Bot. Jahrb. XXXIV, p. 56, 1905; SACC. Syll. Fung. XVIII, p. 598, 1906; BUTLER & BISBY, The Fungi of India p. 142, 1931.

Hab. in foliis vivis *Terminaliae Catappae* L.; Taihoku, Formosa, 6. XII. 1933, leg. W. YAMAMOTO.

3. ***Cercospora ebulicola*** sp. nov. (Fig. 1, Nos. 3 & 4)

Caespitulis semper hypophyllis, sine maculis, in epiphyllo tantum decolorationibus suborbicularibus, flavo-viridulas vel flavo-brunneolas indistinctas efficientibus, irregulariter lateque dispersis, ambitu irregularibus, plus minusve angularibus, indistincte limitatis, saepe confluentibus et majoribus, interdum magnam folii partem obtegentibus, laxis vel subdensis, velutinis, fuscis vel atro-olivaceis; conidiophoris plerumque e stomatibus oriundis, fasciculatis, simplicibus vel ramulis 1–2 instructis, varie curvatis et geniculatis, 4–15-septatis, pallide olivaceo-brunneolis, 75–137 μ, raro ad 208 μ longis, 3.5–5 μ latis; conidiis vermiformibus vel acicularibus, raro clavato-cylindraceis, rectis vel parum curvatis, ad basim

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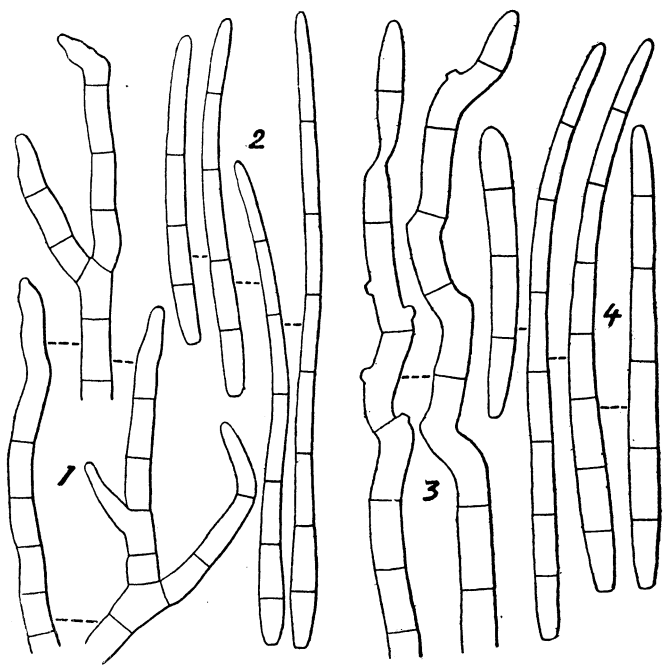

saepe attenuato-truncatis, apicem versus sensim attenuatis, 3–9-septatis, non constrictis, dilutissime olivaceis, 36–98 μ longis, 3.5–4.5 μ latis.

Hab. in foliis vivis *Ebuli formosanae* NAKAI; Sozan, Formosa, 3. XII. 1933, leg. W. YAMAMOTO.

Fig. 1.

Nos. 1 & 2. Conidiophores and conidia of *Cercospora Bischofiae* sp. nov. Nos. 3 & 4. Conidiophores and conidia of *Cercospora ebulicola* sp. nov. (× ca. 667)

4. ***Cercospora Fagarae*** sp. nov. (Fig. 2, Nos. 1 & 2)

Maculis laxe vel densiuscule irregulariterque sparsis, angularibus vel irregularibus, raro fere orbicularibus, saepe nervuli foliorum plus minusve limitatis, 1–5 mm. diam., saepe confluentibus et majoribus, purpureo-brunneis vel atro-brunneolis, postea in centro saepe expallescentibus; caespitulis amphigenis, sed autem saepe hypophyllis, in epiphyllo laxe dispersis, minutissime punctiformibus, in hypophyllo dense dispersis, tenuissime velutinis, atro-olivaceis; conidiophoris in hypostromatibus densiuscule gregariis, innato-erumpentibus, irregulariter rotundatis vel breviter cylindraceis, 30–85 μ latis, e cellulis, pallide olivaceis vel brunneolis, anguloso-rotundatis, 3.6–7.2 μ diam. metientibus compositis ortis, simplicibus vel ramulosis, rectis vel parum curvatis, subgeniculatis, dilute olivaceo-brunneolis, apicem versus pallidioris, 1–7-septatis, 26–72 μ longis, 3–4.5 μ latis; conidiis obclavato-acicularibus vel cylindraceis, rectis vel parum curvatis, ad basim attenuato-truncatis, apicem versus sensim attenuatis, dilutissime olivaceis, granulosis, indistincte 3–11-septatis, 28–104 μ longis, 3–4.5 μ latis.

Hab. in foliis vivis *Fagarae ailanthoidis* ENGL.; Tansui, Formosa, 26. XI. 1933, leg. W. YAMAMOTO.

Remarks. This species differs from *Cercospora Xanthoxyli* COOKE, occurring on *Xanthoxylum carolinensis*, in having mostly hypophyllous, longer, branched,

somewhat geniculate conidiophores and longer, more septate, olivaceous conidia.

5. ***Cercospora malayensis*** STEV. et SOLH. in Myc. XXIII, p. 394, 1931.

Hab. in foliis vivis *Hibisci esculenti* L.; Taihoku, Formosa, 6. XII. 1933, leg. W. YAMAMOTO.

6. ***Cercospora Mucunae-ferrugineae*** sp. nov. (Fig. 2, Nos. 3 & 4)

Caespitulis hypophyllis, in epiphyllo decolorationes indeterminatas irregulares, primitus flavo-brunneas dein sordide atro-brunneolas efficientibus, late effusis, 0.3–9 mm diam., interdum confluendo multo majores et saepe magnam folii partem obtegentibus, fusco-brunneis vel brunneo-griseolis; hyphis mycelii e stomatibus erumpentibus, ad folii superficem repentibus, dilute olivaceis, 2–3 μ latis; conidiophoris plus minusve stipatis, plerumque bina vel complura e stomatibus oriundis, sed saepe singularia in hyphis mycelii ortis, simplicibus vel ramulosis, rectis vel curvatis, apicem versus saepe breviter denticulatis et subgeniculatis,

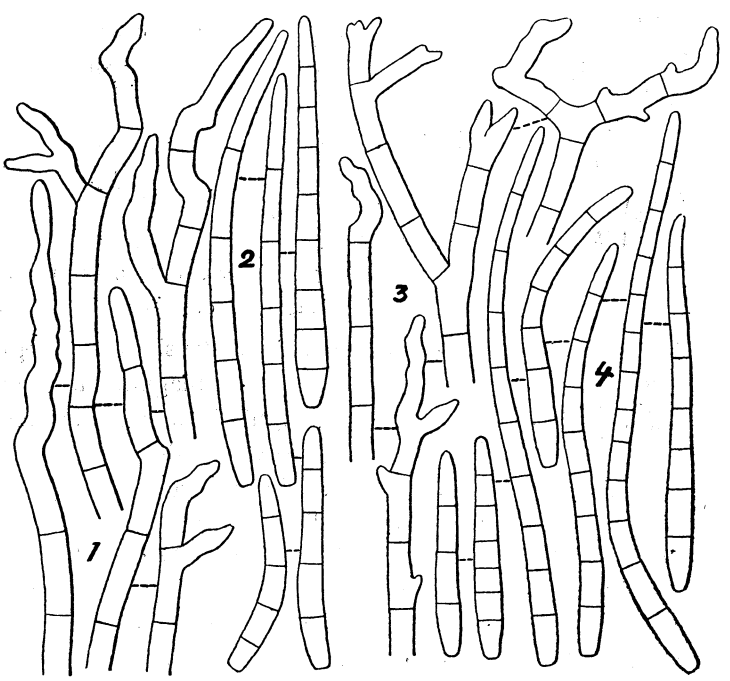

Fig. 2.

Nos. 1 & 2. Conidiophores and conidia of *Cercospora Fagarae* sp. nov.
Nos. 3 & 4. Conidiophores and conidia of *Cercospora Mucunae-ferrugineae* sp. nov. (×ca. 667)

continuis vel 1–7-septatis, dilute olivaceo-brunneolis, 13-62 μ longis, 3-4 μ latis; conidiis cylindraceis vel obclavato-acicularibus, rectis vel parum curvatis, utrinque rotundatis vel obtusiusculis, apicem versus parum attenuatis, indistincte 1–12-septatis, ad septa non vel raro parum constrictis, dilute olivaceis, granulosis, 23–130 μ longis, 3-4.5 μ latis.

Hab. in foliis vivis *Mucunae ferrugineae* MATS.; Taihoku, Formosa, 3. XII. 1933, leg. W. YAMAMOTO.

Remarks. This species differs from *Cercospora Mucunae* SYD. on *Mucuna* sp. in having shorter, branched, denticulate, and somewhat geniculate conidiophores and longer, more septate, slender conidia.

7. ***Cercospora neovignae*** nom. nov.

Cercospora Vignae RAC. (non ELL. et Ev.) in Zeitschr. für Pflanzenkr. VIII, p. 66, 1898; SACC. Syll. Fung. XVI, p. 1068, 1902; STEVENS, The Fungi Which Cause Plant Disease p. 630, 1919; BUTLER, Fungi and Disease in Plants p. 261, 1918; WELLES, Amer, Journ. Bot. XII, p. 211, 1925; SYD. Ann. Myc. XXVII, p. 434, 1929; WOLLENWEBER, Hyphomycetes (SORAUER, Handb. der Pflanzenkr. 5te Aufl. III, Teil ii) p. 685, 1932.

Cercospora Raciborskii (RAC.) MATS. et NAG. (non SACC. et Syd.) in Journ. of Plant Prot. XVIII, p. 721, 1931.

Hab. in foliis vivis *Vignae sinensis* (L.) ENDL. var. *Catiang* NAKAI; Taihoku, Formosa, 20. XII. 1933, leg. W. YAMAMOTO.

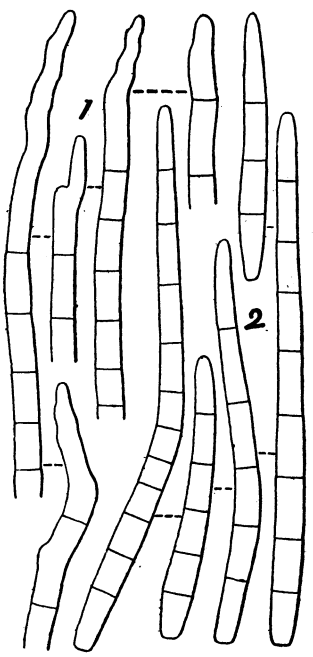

Fig. 3.

Nos. 1 & 2. Conidiophores and conidia of *Cercospora pueraricola* sp. nov. (×ca. 667)

8. ***Cercospora pueraricola*** sp. nov.
(Fig. 3, Nos. 1 & 2)

Maculis laxe vel densiuscule irregulariterque sparsis, quoad formam et magnitudinem variis, plerumque omnino irregularibus, raro angularibus vel orbicularibus, ca. 2–10 mm diam., primitus brunneis vel atro-brunneis, linea marginali vix vel parum elevatis; caespitulis plerumque epiphyllis, densiuscule dispersis, minutissimis, punctiformibus; conidiophoris dense stipatis, saepe in hypostromate innato-erumpenti ortis, simplicibus vel raro ramulosis, cylindraceis, olivaceo-brunneolis, apicem versus pallidioris et saepe attenuatis, continuis vel 1–5-septatis, ad septa non

constrictis, 23-68 μ longis, 3.5–4.5 μ latis; conidiis obclavato-acicularibus vel cylindraceis, rectis vel parum curvatis, ad basim truncatis vel rotundatis, apicem versus sensim attenuatis, 1–11-septatis, plerumque 3–7-septatis, non constrictis, dilutissime olivaceis, 26–133 μ, plerumque 33-85 μ longis, 3-4.5 μ latis.

Hab. in foliis vivis *Puerariae Thunbergianae* (SIEB. et ZUCC.) BENTH.; Taihoku, Formosa, 10. XII. 1933, leg. W. YAMAMOTO.

Remarks. This species differs from *Cercospora Puerariae* SYD. on *Pueraria phaseoloides* (ROXB.) BENTH. in being epiphyllous, and in having shorter, narrower, non constricted conidiophores and more slender conidia.

9. ***Cercospora Ternateae*** PETCH in Ann. R. Bot. Gard. Peradeniya IV, Pt. V, p. 306, 1909; SACC. Syll. Fung. XXII, p. 1419, 1913; BUTLER & BISBY, The Fungi of India p. 143, 1931.

Hab. in follis vivis *Clitoriae Ternateae* L.; Taihoku, Formosa, 11. XII. 1933, leg. W. YAMAMOTO.

Remarks. This species is very closely related to *Cercospora pantholeuca* SYD., occurring on the same host, but it differs in having longer, thicker, more septate conidiophores and longer, more septate conidia.

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