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Taxonomic notes on some species of the *Cercospora* complex (IV)

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Mycovellosiella asprellae sp. nov. is described and 10 species of *Cercospora* are reassessed and placed in *Mycovellosiella, Passalora, Prathigada* and *Pseudocercospora*, respectively.

Keywords: *Mycovellosiella asprellae* sp. nov., new combinations, *Mycovellosiella, Passalora, Prathigada, Pseudocercospora.*

Cercospora s.lato is one of the largest hyphomycetous genera. Deighton (1967, 1974, 1976) and some other authors reassessed *Cercospora* ss. Chupp (1954) and separated this genus into smaller, more natural units. Numerous species of *Cercospora* have been reexamined and referred to various other genera of this complex. There is, however, a large number of species not reassessed. In the present paper, a series dealing with reexaminations of type collections of *Cercospora* species is continued (Braun, 1992; 1993a, 1993b). Braun (1995) published a comprehensive key to the cercosporoid genera and discussed the particular genera of this complex. This treatment is the basis for the generic concept used in this paper.

Mycovellosiella anomala (Ell. & Halst.) U. Braun, comb. nov. – Fig. 1.
Bas.: *Cercospora anomala* Ell. & Halst., J. Mycol. 4: 8 (1888).

Description. – Chupp (1954: 121).

Leaf spots lacking or only diffuse, angular-irregular, yellowish brown discolorations. – Colonies hypophyllous, 2–10 mm diam., ferrugineous, effuse. – Primary mycelium internal; hyphae pale. – Stroma absent, occasionally with small stromatic hyphal knots. – Secondary mycelium superficial; hyphae creeping, sometimes climbing leaf hairs, septate, branched, subhyaline to brownish, 2–5 µm wide, smooth. – Conidiophores solitary, arising from creeping hyphae, lateral, occasionally terminal, straight, subcylindric

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to slightly geniculate-sinuous, simple, 10–60 x 3–5 µm, 0–1(–2)-septate, subhyaline to pale yellowish, olivaceous or brownish, smooth. – Conidial scars conspicuous, slightly thickened, darkened. – Conidia solitary or in short chains, cylindrical, 20–55 x 3–6 µm, 1(–3)-septate, concolorous with the conidiophores, smooth, apex rounded to truncate, base obconically truncate; hila somewhat thickened and darkened.

Holotype. – On *Verbesina alternifolia* (L.) Britt. ex Kearn. (Asteraceae), USA, Iowa, Aug. 1887, A. S. Hitchcock (NY).

Chupp (l.c.) supposed that this species could be a member of the genus *Cladosporium*, but on account of the secondary mycelium with solitary conidiophores and the structure of the conidial scars and hila, it must be referred to *Mycovellosiella*.

Mycovellosiella asprellae U. Braun, sp. nov. – Fig. 2.
= *Cercospora asprellae* Ell. & Galloway, nom. nud. (in herb.).

Maculae amphigenae, anguste oblongae, 1–2 x 0.5 mm, deinde confluentes, lineares, ad ca. 10 mm longae, subnigrae, margine indistincto. Coloniae amphigenae, saepe hypophyllae, densae, velutinae, sordide griseo-brunneae. Mycelium primarium immersum. Stromata minuta, brunnea. Mycelium secundarium superficiale; hyphae ramosae, septatae, leviae, 2–6 µm latae, subhyalinae vel olivaceo-brunneae, ex hyphis primariis vel ex cellulis stromatibus oriundae, dense implexae vel funiculares. Conidiophora primaria laxe fasciculata, ex cellulis stromaticis oriunda; conidiophora secundaria solitaria, ex hyphis secundariis lateraliter vel terminaliter oriunda, erecta, simplicia, ca. 10–70 x 3–6 µm, recta, subcylindrica, geniculata-sinuosa, continua vel septata, levia, pallide olivacea vel olivaceo-brunnea. Cicatrices conidiales conspicuae, incrassatae, fuscae. Conidia solitaria, fusiformia, obclavata, apicem versus attenuata, interdum subflagelliformia, 20–75 x 3–5 µm, 2–6-septata, raro constricta, subhyalina vel pallide olivacea, levia, ad apicem subacuta, basi obconice truncata; hila incrassata, fusca.

Holotype. – On *Hystrix patula* Moench (≡ *Asprella hystrix* (L.) Humb.), USA, Oregon, Ill., 10-9-1889, M. B. Waite 199 (NY).

Leaf spots amphigenous, narrow, oblong, 1–2 x 0.5 mm, later confluent, forming long narrow lines, up to about 10 mm, dark, blackish, margin indefinite. – Colonies amphigenous, mostly hypophyllous, dense, velvety, dull greyish brown. – Primary mycelium internal, forming brown stromatic hyphal aggregations; secondary mycelium superficial; hyphae branched, septate, smooth, 2–6 µm wide, subhyaline to olivaceous brown, arising from internal hyphae or stromata, densely intertwined or often forming ropes. – Primary conidiophores in loose fascicles, arising from stromatic hyphal aggregations; secondary conidiophores solitary, arising from creeping hyphae; conidiophores erect, simple, about 10–70 x 3–6 µm, straight,

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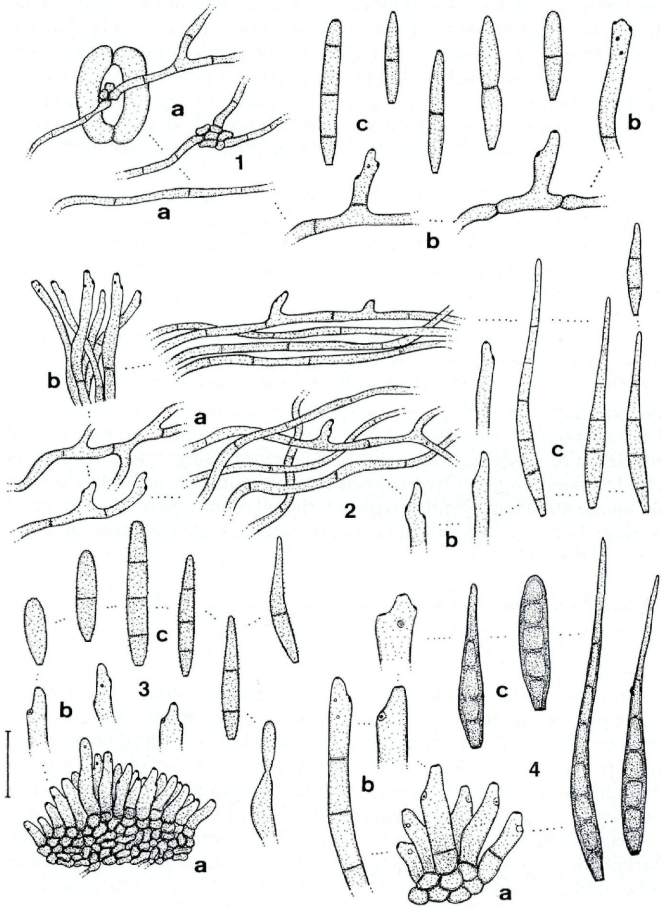

Figs. 1–4. – 1. *Mycovellosiella anomala*. – a. superficial hyphae. – b. conidiophores. – c. conidia. – 2. *M. asprellae*. – a. superficial hyphae. – b. conidiophores. – c. conidia. – 3. *Passalora daleae*. – a. sporodochium. – b. conidiophores. – c. conidia. – 4. *Prathigada gymnocladi*. – a. fascicles of conidiophores. – b. conidiophores. – c. conidia. – Bar = 20 µm. U. Braun del.

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subcylindric to geniculate-sinuous, continuous to septate, smooth, pale olivaceous to olivaceous brown. – Conidial scars conspicuous, thickened and darkened. – Conidia solitary, fusiform, obclavate, narrowed towards a subacute tip, upper part in long conidia often almost flagelliform, 20–75 x 3–5 µm, 2–6-septate, rarely somewhat constricted at the septa, subhyaline to pale olivaceous, smooth, apex subacute, base obconically truncate; hilum thickened and darkened.

Chupp (1954: 256) discussed the status of this fungus, but did not validate the name *C. asprellae* because he was not able to find sufficient fructification for a full description. I reexamined the material concerned and found some lesions with rich colonies sufficient for a comprehensive description.

The present species is a typical *Mycovellosiella* with superficial secondary mycelium and thickened, darkened conidial scars. *M. asprellae* is close to *M. koepkei* (W. Krüger) Deighton, but differs in having shorter conidiophores and narrower conidia. The features of the leaf spots are also distinct and flagelliform conidial apices are not formed in *M. koepkei*. *M. vaginae* (W. Krüger) Deighton is characterized by much longer, often branched conidiophores and subcylindric, obclavate-fusiform conidia without flagelliform apex. *M. imperatae* (Syd. & P. Syd.) Goh & Hsieh possesses wider conidia and quite distinct leaf spots.

Passalora daleae (Ell. & Kellerm.) U. Braun, comb. nov. – Fig. 3.
Bas.: *Cercospora daleae* Ell. & Kellerm., J. Mycol. 4: 6 (1888).

Leaf spots absent. – Conidiomata sporodochial, punctiform, blackish. – Mycelium immersed; hyphae pigmented. – Stromata immersed, very large, 40–120 µm diam., composed of brown, thick-walled hyphal cells, 3–9 µm wide. – Conidiophores very numerous, in dense fascicles, arising from stromata, simple, straight, subcylindric to slightly geniculate-sinuous, 6–25 x 4–6 µm, 0–1-septate, olivaceous brown, smooth. – Conidial scars conspicuous, almost unthickened or only slightly thickened, but somewhat darkened. – Conidia solitary, ellipsoid-ovoid, obclavate-fusiform, subcylindric, 15–45 x 3.5–6 µm, 0–3-septate, subhyaline to pale olivaceous, almost smooth to verruculose, apex obtuse or subacute, base obconically truncate; hilum hardly thickened, somewhat darkened.

Holotype. – On stems of *Dalea enneandra* Nutt. (Fabaceae), USA, Kansas, 1887, Kellerman 954 (NY).

Because of the structure of the conidial scars and the small, 0–3-septate conidia, this species must be placed in *Passalora* (incl. *Cerco-*

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sporidium). It is allied to *Passalora caracasana* Syd., known on *Dalea vulneraria* var. *barbata* Oerst. (≡ *Parosela barbata* (Oerst.) Rydb.) from Venezuela. The latter species differs, however, by having much longer conidiophores and obovoid to subcylindric-obovoid conidia (cf. Deighton, 1967). Chupp (1954: 300) excluded *C. daleae* from *Cercospora*.

Prathigada gymnocladi (Ell. & Kellerm.) U. Braun, comb. nov. – Fig. 4.

Bas.: *Cercospora gymnocladi* Ell. & Kellerm., Bull. Torrey bot. Club 11: 121 (1884) and J. Mycol. 1: 23 (1885).

= *Cercospora superflua* Ell. & Holw., J. Mycol. 2: 2 (1886) [Syntypi: on *Gymnocladus dioica* (L.) K. Koch (sub *Fraxinus* ?), USA, Iowa, Decorah, Aug. 1885, Holway, Ell. & Ev., N. Am. Fungi 1525, e.g. NY].

Leaf spots amphigenous, subcircular to angular-irregular, 1–6 mm diam., centre pale, yellowish-ochraceous to dull greyish white, margin narrow to moderately wide, darker, pale to reddish brown. – Caespituli amphigenous, dark, punctiform. – Mycelium internal; hyphae pigmented. – Stromata 20–40 µm diam., brown, immersed to somewhat erumpent. – Conidiophores in small to moderately large fascicles, mostly fairly dense, simple, erect, subcylindric, geniculate-sinuous, 10–50 x 4–7 µm, yellowish to medium brown, smooth, 0–3-septate. – Conidial scars ca. 1.5–2.5 µm wide, slightly thickened and darkened, often subtruncate and somewhat protuberant. – Conidia solitary, short conidia ellipsoid-subcylindric, longer ones obclavate, 15–80 x 4–8 µm, long conidia attenuated towards the apex, sometimes almost rostrate, 2–12-septate, yellowish brown, smooth, fairly thick-walled, apex obtuse to subacute, base truncate; hilum slightly thickened and darkened.

Holotype. – On *Gymnocladus dioica* (L.) K. Koch (Fabaceae), USA, Kansas, Manhattan, July 1884, Kellerman (NY). Isotypi: Ell. & Ev., N. Am. Fungi 1511.

Numerous additional specimens from NY have been studied. The conidial scars are *Passalora*-like, i.e. hardly or slightly thickened and somewhat darkened, but the pigmented conidia are pluriseptate and thick-walled. These characteristics agree with the concept of *Prathigada* (cf. Sutton, 1994; Braun, 1995). Chupp (1954: 419) excluded this species from *Cercospora*.

Prathigada maclurae (Thüm.) U. Braun, comb. nov. – Fig. 5.

Bas.: *Sporidesmium maclurae* Thüm., Mycoth. Univ., Cent. XXI, No. 2074, Wien 1881.

≡ *Pseudocercospora maclurae* (Thüm.) Morgan-Jones & Phelps, Mycotaxon 57: 190 (1996).

= *Cercospora maclurae* Ell. & Ev., J. Mycol. 8: 72 (1902) [Holotype: on *Maclura aurantiaca* Nutt., USA, Alabama, Tuskegee, Nov. 1901, Carver 269 (NY)].

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Leaf spots absent or only yellowish-ochraceous discolorations, diffuse to angular-irregular. – Caespituli hypophyllous, dark greyish brown, effuse. – Mycelium internal; hyphae subhyaline to pigmented, 1.5–3 µm wide, occasionally with a few superficial, creeping hyphae, arising from stroma cells at the base of conidiophores. – Stromata absent or small, 10–20 µm diam., substomatal, composed of a few swollen, pigmented hyphal cells. – Conidiophores in small to moderately large fascicles, loose to dense, emerging through stomata, straight, subcylindric to somewhat geniculate-sinuous, simple, compact, 10–40 x (4–)5–7(–8) µm, 0–1-septate, yellowish brown, smooth. – Conidial scars almost unthickened or only slightly thickened, but usually somewhat darkened, up to 3 µm wide, in front view to be seen as circular, somewhat darkened dots. – Conidia formed singly, obclavate, usually more or less rostrate, 40–100 x 5–8.5 µm, 2–12-septate, yellowish to medium brown, paler towards the apex, verruculose, fairly thick-walled, attenuated and thin-walled towards the apex, tips obtuse to subacute, base obconically truncate; hilum almost unthickened or slightly thickened and somewhat darkened.

Syntype. – On *Maclura aurantiaca* Nutt. (Moraceae), USA, S. Carolina, Aiken, July 1876, Ravenel, Thüm., Mycoth. Univ. 2074 (HAL).

The investigation of type material of *Sporidesmium maclurae* and *Cercospora maclurae* showed that these species are identical. On account of the obclavate, rostrate, pluriseptate, thick-walled conidia and the structure of the conidial scars, this species can also be placed in *Prathigada*. A second collection on *Maclura pomifera* (Raf.) C. K. Schneid. has been examined (USA, Jerseyville, Ill., 14.8.1933, Boewe 24256, NY). Chupp (1954: 398) excluded this species from *Cercospora*. Morgan-Jones and Phelps (1996) placed this species in *Pseudocercospora*. The conidial scars are, however, not quite inconspicuous. In front view, they are seen as small, circular, somewhat darkened dots. The conidia resemble those of *Prathigada crataevae* (Syd.) Subram., the type species, and *P. terminaliae* (Syd.) B. Sutton (1994: 45). Deighton (1976) referred the latter species to *Pseudocercospora*. Morgan-Jones & Phelps (l.c.) described long conidiophores, up to 146 µm, but I did never observe conidiophores exceeding 40 µm in length.

Pseudocercospora diervillae (Ell. & Ev.) U. Braun, comb. nov. – Fig. 6.
Bas.: *Cercospora diervillae* Ell. & Ev., Univ. Orono, Maine, Stud. 3: 22 (1902).

Description. – Chupp (1954: 101).

Leaf spots amphigenous, subcircular-angular, 1–5 mm diam., brownish or dull greyish, with reddish to purplish-violet margin. –

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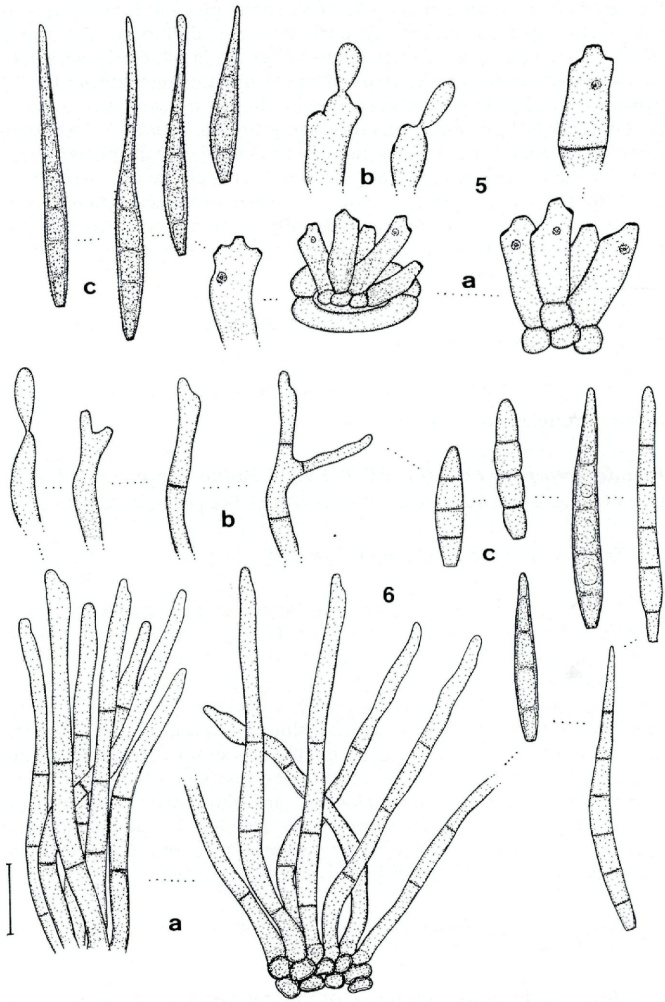

Figs. 5–6. – 5. *Prathigada maclurae*. – a. fascicles of conidiophores. – b. conidiophores. – c. conidia. – 6. *Pseudocercospora diervillae*. – a. fascicles of conidiophores. – b. conidiophores. – c. conidia. – Bar = 20 µm. U. Braun del.

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Caespituli amphigenous. – Mycelium internal; hypae pigmented. – Stromata immersed, dark brown, subglobose, 20–70 µm diam. – Conidiophores in moderately rich fascicles, dense, sometimes almost synnematous, arising from stromata, erect, straight, subcylindric to slightly geniculate-sinuous, simple, occasionally branched, 60–130 x 4–6 µm, uniformly olivaceous brown, usually 1–5-septate, smooth. – Conidial scars neither thickened, nor darkened, occasionally subdenticulate. – Conidia solitary, obclavate (-subcylindric), 30–100 x 5–6.5 µm, 2–6-septate, olivaceous brown, smooth, wall thin to somewhat thickened, occasionally guttulate, apex rounded or conidia attenuated towards a subacute tip, base obconically truncate; hila unthickened, not darkened.

Holotype. – On *Diervilla lonicera* Mill. (Caprifoliaceae), USA, Orono, Maine, Oct. 1900, Ricker 133 (NY).

The present species is a typical *Pseudocercospora* with inconspicuous, unthickened conidial scars.

Pseudocercospora kalmiae (Ell. & Ev.) U. Braun, comb. nov. – Fig. 7.

Bas.: *Cercospora kalmiae* Ell. & Ev., Proc. Acad. Nat. Sci. Phil. I, 43: 88 (1891).

Description. – Chupp (1954: 208).

Leaf spots amphigenous, subcircular to angular-irregular, usually 4–10 mm diam., brown, centre later greyish brown to greyish white, margin darker. – Caespituli amphigenous, often epiphyllous, punctiform, pustulate, dark. – Mycelium immersed, pigmented. – Stromata large, 40–150 µm diam., brown. – Conidiophores very numerous, in dense sporodochial fascicles, simple, subcylindric, straight to flexuous, slightly geniculate-sinuous, 5–40 x 2–5 µm, continuous or septate, subhyaline to olivaceous, smooth. – Conidial scars inconspicuous, unthickened, not darkened. – Conidia formed singly, subcylindric (-obclavate), 20–65 x 2–5 µm, subhyaline to pale olivaceous, obscurely septate, mostly 3–5 septa, apex rounded, base truncate; hilum neither thickened, nor darkened.

Isotypes. – On *Kalmia latifolia* L. (Ericaceae), USA, Newfield, New Jersey, 1-1-1890, Ell. & Ev., N. Am. Fungi 2591 (GZU, NY).

Several additional specimens of this species have been examined, e.g. Crypt. exs. 3701 and Reliquiae Petrakianae 556 (GZU). The conidial scars in *C. kalmiae* are unthickened, not darkened. Hence, this species is a typical *Pseudocercospora*.

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Pseudocercospora kennedyae (Cooke & Massee) U. Braun, comb. nov. – Fig. 8.
Bas.: *Cercospora kennedyae* Cooke & Massee, Grevillea 19: 90 (1891).

Description. – Chupp (1954: 313).

Leaf spots amphigenous, brown, angular-irregular, size and shape variable, small, 1–4 mm diam., sometimes larger, confluent, forming large necrotic areas or entire leaves becoming brown, dry. – Caespituli amphigenous, punctiform, greyish brown. – Mycelium internal; hyphae pigmented. – Stromata immersed, large, 20–100 µm diam., olivaceous brown. – Conidiophores in rich, dense fascicles, arising from stromata, geniculate-sinuous, 10–35 x 2–3.5 µm, usually aseptate, subhyaline to pale yellowish green, olivaceous or yellowish brown. – Conidial scars obscure, neither thickened, nor darkened. – Conidia solitary, acicular, narrowly obclavate, 20–75 x 2–4 µm, indistinctly pluriseptate, subhyaline to pale olivaceous, apex subacute, base truncate; hilum unthickened, not darkened.

Holotype. – On *Kennedya prostrata* R. Br. in Ait. (Fabaceae), Australia, Victoria, Martin 603 (K).

The conidial scars and hila in this species are inconspicuous, unthickened. Therefore, it must be referred to *Pseudocercospora*. There is a second collection on the same host [Australia, N.S.W., Durras Lake, 6.5.1956, Gauba, Reliquiae Petrakianae 1353 (GZU)].

Pseudocercospora kurimensis (Fukui) U. Braun, comb. nov. – Fig. 9 A.
Bas.: *Cercospora kurimensis* Fukui, Bull. Mie Imp. Coll. Agric. Forest. 3: 13 (1933).
= *Cercospora nerii-indici* Yamamoto, J. Soc. Trop. Agric. 6: 605 (1934).

Descriptions. – Chupp (1954: 48), Katsuki (1965: 10), Hsieh & Goh (1990: 25), Guo & Hsieh (1995: 18), sub *P. neriella*.

Chupp (1954: 48) clearly separated *C. neriella* Sacc. and *C. nerii-indici*. Deighton (1976: 149) reduced *C. nerii-indici* into synonymy with *C. neriella*. I examined various collections of *C. neriella* on *Nerium oleander* L. (e.g., Briosi & Cav., F. paras. 184, HAL; Tunisia, Hammamat, 1968, Poelt, GZU) and compared it with the *Pseudocercospora* on *Nerium indicum* Mill. from Asia. Hsieh & Goh (1990: 25, Fig. 12) as well as Guo & Hsieh (1995: 18, Fig. 18) published detailed descriptions and good illustrations of the latter fungus (sub *Pseudocercospora neriella*). Katsuki (1965: 10) pointed out that *C. kurimensis* is the oldest valid name for this species [type: on *Nerium indicum* Mill., Japan, Kurima-mura, Mie (not available for a reexamination)]. *P. neriella* and *P. kurimensis* are well-distinguished and easily separable:

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1. Mycelium internal (secondary mycelium absent); conidiophores very numerous in dense, epiphyllous, sporodochial conidiomata; stromata large, 25-150 µm diam. (occasionally with smaller hypophyllous fascicles); conidia subcylindric, 15–50 x 3–5(–6) µm, 0–4(–5)-septate, apex obtuse; on *Nerium oleander* (Fig. 9B)..... ..... *Pseudocercospora neriella* (Sacc.) Deighton

1. With internal primary and external secondary mycelium; conidiophores in small to moderately large fascicles, hypophyllous, or solitary, arising from secondary hyphae (fascicles sometimes lacking); stromata smaller or sometimes absent; conidia narrowly obclavate (-filiform), longer, 20–115 x 2–5 µm, 3–11-septate, tips subacute; on *Nerium indicum* (Fig. 9A) .... *Pseudocercospora kurimensis* (Fukui) U. Braun

Pseudocercospora pampangensis (Petr.) U. Braun, comb. nov. – Fig. 10.
Bas.: *Cercospora pampangensis* Petr., Sydowia 10: 126 (1957).

Leaf spots amphigenous, subcircular to angular-irregular, 1–15 mm diam., ochraceous to greyish brown. – Caespituli usually hypophyllous, punctiform, dark. – Mycelium internal; hyphae pigmented. – Stromata substomatal, 20–40 µm diam., pigmented. – Conidiophores in small to moderately large fascicles, arising from stromata, through stomata, erect, divergent to dense, often subsynnematous, filiform, subcylindric to slightly geniculate-sinuous, 15–250 x 3–6 µm, simple, occasionally branched, pluriseptate, olivaceous to medium brown, smooth. – Conidial scars obscure, neither thickened, nor darkened. – Conidia solitary, subcylindric, 15–50 x 3–6.5 µm, 1–6(–7)-septate, subhyaline to pale olivaceous, apex obtuse, base truncate; hilum unthickened, not darkened.

Lectotype. – On *Mallotus* spec. (Euphorbiaceae), Philippines, Luzon, Prov. Pampanga, Angeles, Oct. 1923, Clemens, Reliquiae Petrakianae 2148 (GZU).

Original material of this species is distributed under "Reliquiae Petrakianae 2148". Therefore, it is necessary to select a lectotype. *C. pampangensis* is a typical *Pseudocercospora* with inconspicuous, unthickened conidial scars.

Pseudocercospora zambalesica (Petr.) U. Braun, comb. nov. – Fig. 11.
Bas.: *Cercospora zambalesica* Petr., Sydowia 10: 127 (1956).

Leaf spots amphigenous, subcircular to angular-irregular, small, yellowish, brownish. – Caespituli hypophyllous, punctiform, dark. – Primary mycelium internal, pigmented; occasionally with some secondary hyphae, arising from stromata, 2–4 µm

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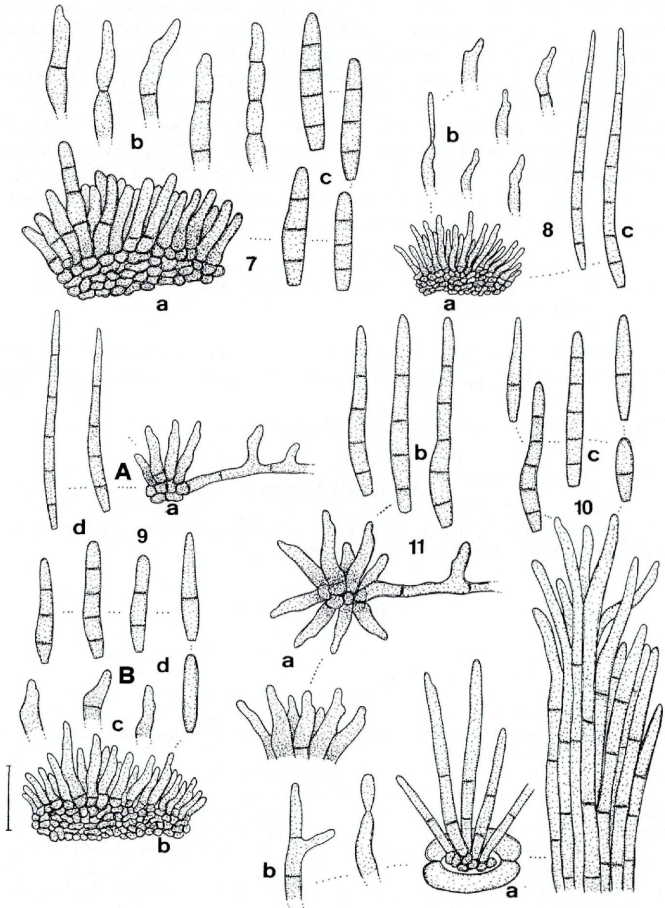

Figs. 7–11. – 7. *Pseudocercospora kalmiae*. – a. sporodochium. – b. conidiophores. – c. conidia. – 8. *P. kennedyae*. – a. sporodochium. – b. conidiophores. – c. conidia. – 9A. *P. kurimensis*. – 9B. *P. neriella*. – a. fascicles of conidiophores. – b. sporodochium. – c. conidiophores. – d. conidia. – 10. *P. pampangensis*. – a. fascicles of conidiophores. – b. conidiophores. – c. conidia. – 11. *P. zambalesica*. – a. fascicles of conidiophores. – b. conidia. – Bar = 20 µm. U. Braun del.

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wide, pale, septate, smooth. – Stromata small, substomatal, pigmented. – Conidiophores in small to moderately large fascicles, arising from stromata, through stomata, loose to moderately dense, occasionally solitary, arising from creeping secondary hyphae as lateral branchlets, flexuous, somewhat geniculate-sinuous, simple, 10–40 x 3–5 µm, 0–1(–3)-septate, subhyaline to pale brown. – Conidial scars obscure, unthickened, not darkened. – Conidia formed singly, subcylindric-obclavate, acicular-filiform, 20–60 x 3–5 µm, 1–5-septate, subhyaline to pale olivaceous, apex rounded to subacute, base truncate; hilum neither thickened, nor darkened.

Lectotype. – On *Allophylus* spec. [cf. *A. macrostachys* and *A. filiger*] (Sapindaceae), Philippines, Luzon, Prov. Lambales, Olongapo, March 1924, Clemens, Reliquiae Petrakianae 947 (GZU).

Original material of this species is distributed under „Reliquiae Petrakianae 947". Therefore, it is necessary to select a lectotype. The conidial scars in *C. zambalesica* are inconspicuous, unthickened. Hence, this species belongs to *Pseudocercospora*.

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References

Braun, U. (1992). Taxonomic notes on some species of the *Cercospora* complex. – Nova Hedwigia 55: 211–221.

—— (1993a). Taxonomic notes on some species of the *Cercospora* complex (II). – Crypt. Bot. 3: 235–244.

—— (1993b). Taxonomic notes on some species of the *Cercospora* complex (III). – Mycotaxon 48: 275–298.

—— (1995). A monograph of *Cercosporella, Ramularia* and allied genera (phytopathogenic hyphomycetes). – Vol. 1. Eching.

Chupp, C. (1954). A monograph of the fungus genus *Cercospora*. – Ithaca, New York.

Deighton, F. C. (1967). Studies on *Cercospora* and allied genera. II. *Passalora, Cercosporidium* and some species of *Fusicladium* on *Euphorbia*. – Mycol. Pap. 112: 1–80.

—— (1974). Studies on *Cercospora* and allied genera. V. *Mycovellosiella* Rangel, and a new species of *Ramulariopsis*. – Mycol. Pap. 137: 1–75.

—— (1976). Studies on *Cercospora* and allied genera. VI. *Pseudocercospora* Speg., *Pantospora* Cif. and *Cercoseptoria* Petr. – Mycol. Pap. 140: 1–168.

Guo, Y.-L. & W.-H. Hsieh (1995). The genus *Pseudocercospora* in China. – Mycosystema Monographicum Series No. 2: 1–388.

Hsieh, W.-H. & T.-K. Goh (1990). *Cercospora* and similar fungi from Taiwan. – Maw Chang Book Company, Taipei.

Katsuki, S. (1965). Cercosporae of Japan. – Trans. mycol. Soc. Japan, Extra Issue No. 1: 1–100.

Verlag Ferdinand Berger & Söhne Ges.m.b.H., Horn, Austria, download unter www.biologiezentrum

Morgan-Jones, G. & R. A. Phelps (1996). Notes on Hyphomycetes LXIX. Concerning *Sporidesmium maclurae* and its synonym *Cercospora maclurae*, the causal organism of leaf-blotch of osage-orange (*Maclura pomifera*), reclassified in *Pseudocercospora*. – Mycotaxon 57: 187–194.

Sutton, B. C. (1994). *Prathigada terminaliae*. IMI Descriptions of Fungi and Bacteria No. 1181. – Mycopathologia 125: 45–46.

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