

Annotated list of *Cercospora* spp. described by C. Spegazzini

UWE BRAUN

Abstract: BRAUN, U. 2000: Annotated list of *Cercospora* spp. described by C. Spegazzini. *Schlechtendalia* 5: 57-79.

All available type collections of *Cercospora* spp. described by C. Spegazzini have been re-examined and reassessed, based on modern generic concepts. *Pseudoasperisporium* gen. nov. is described, with *P. tupae* comb. nov. as type species. Furthermore, the following new combinations are proposed: *Asperisporium vasconcelliae* comb. nov., *Drechslera palmicola* comb. nov., *Exosporium puccinioides* comb. nov., *Passalora balansae* comb. nov., *P. cordobensis* comb. nov., *P. gilbertii* comb. nov., *P. gomphrenicola* comb. nov., *P. leprosa* comb. nov., *Pseudocercospora bomplandiana* comb. nov., *P. brachypoda* comb. nov., *P. cucurbitina* comb. nov., *P. fumosa* comb. nov., *P. guaranitica* comb. nov., *P. jatropharum* comb. nov., *P. mate* comb. nov., *P. megalopotamica* comb. nov., *P. paludicola* comb. nov., *P. pareirae* comb. nov., *P. platensis* comb. nov. and *P. yerbae* comb. nov.

Zusammenfassung: BRAUN, U. 2000: Annotated list of *Cercospora* spp. described by C. Spegazzini. *Schlechtendalia* 5: 57-79.

Alle verfügbaren Typen von *Cercospora*-Arten, die von C. Spegazzini beschrieben worden sind, wurden auf Grundlage moderner Gattungskonzepte revidiert. Die neue Gattung *Pseudoasperisporium* gen. nov. wird beschrieben mit der Typusart *P. tupae* comb. nov. Weiterhin werden folgende Neukombinationen eingeführt: *Asperisporium vasconcelliae* comb. nov., *Drechslera palmicola* comb. nov., *Exosporium puccinioides* comb. nov., *Passalora balansae* comb. nov., *P. cordobensis* comb. nov., *P. gilbertii* comb. nov., *P. gomphrenicola* comb. nov., *P. leprosa* comb. nov., *Pseudocercospora bomplandiana* comb. nov., *P. brachypoda* comb. nov., *P. cucurbitina* comb. nov., *P. fumosa* comb. nov., *P. guaranitica* comb. nov., *P. jatropharum* comb. nov., *P. mate* comb. nov., *P. megalopotamica* comb. nov., *P. paludicola* comb. nov., *P. pareirae* comb. nov., *P. platensis* comb. nov. und *P. yerbae* comb. nov.

C. Spegazzini was borne in Italy in 1858. He was a distinguished student and collaborator of P.A. Saccardo. In 1879, he left Italy and settled in Argentina where he became a pioneer of South American mycology. Spegazzini described numerous new genera and new species of all fungal groups, including 71 species of *Cercospora* and *Cercosporina* (FARR 1973). CHUPP (1954) published the first monograph of *Cercospora*. He re-examined almost all types of Spegazzini's *Cercospora* spp. and made permanent mounts of all collections which were plentiful (CHUPP 1954: 73). In many cases, CHUPP (1954) noted that the species concerned were known only from the type collection, so that we have to assume that his descriptions were only based on the original descriptions and his own re-examinations of these types. In some other cases, CHUPP's (1954) descriptions were based on types and some additional collections or only on non-type specimens.

CHUPP (1954) used a very wide concept of *Cercospora*. Based on modern generic concepts of cercosporoid *Mycosphaerella* anamorphs (DEIGHTON 1974, 1976; PONS and SUTTON 1988; BRAUN 1995a, 1998; CROUS et al. 2000, 2001), it is necessary to re-examine and reassess all *Cercospora* names introduced by Spegazzini. Some of his species have already been treated by various authors, e.g., BRAUN (1995a), BRAUN and MELNIK (1997), CROUS and BRAUN (1996), GARCIA et al. (1996), etc. SUTTON and PONS (1980) re-examined type collections of *Cercosporina* spp. described by Spegazzini (1910). However, most of Spegazzini's *Cercospora* spp. have not yet been re-examined and reassessed.

In March 2000, a visit at the University of Bahía Blanca (Department of Agronomy), Argentina, organised by R. Delhey and financed by FOMEC, has been used to examine all available type collections of Spegazzini's *Cercospora* spp.

The present list contains all names of *Cercospora* and *Cercosporina* spp. introduced by Spegazzini, notes on the condition of the collections and discussions of the taxonomic position and generic affinity of the species concerned. Most of Spegazzini's collections are scanty, often in poor condition, and only little can be added to CHUPP's (1954) descriptions. In these cases, only the present generic affinity is discussed, with reference to CHUPP's (1954) description which is not repeated.

1. *Cercospora agnostoica* Speg., Rev. Mus. La Plata 15: 45 (1908)
= *Cercospora apii* s.lat.

Holotype: on ?*Symphytum asperrimum*, Brazil, São Paulo, Botanical Garden, Sep. 1905, A. Usteri No. 51 (LPS 951).

CHUPP (1954: 90).

Notes: The holotype bore little of the fungus, but the fragments indicate that this species is a true *Cercospora* s.str. conspecific with *C. apii* s.lat.

2. *Cercospora alemquerensis* Speg., Anal. Soc. Cient. Argent. 93: 116 (1922)

Holotype: on *Acacia alemquerensis*, Brazil, Rio Parú, Pará, 9 July 1919, Ducke No. 10453 (LPS 950).

CHUPP (1954: 278).

Notes: As already stated by CHUPP (1954), there is no fruiting present in the type collection, but according to the original description and Spegazzini's illustration on the packet, this species is rather helminthosporioid.

3. *Cercospora aratai* Speg., Anal. Mus. Nac. B. Aires II, 3: 340 (1899)

≡ *Passalora aratai* (Speg.) U. Braun, R. Delhey & M. Kiehr, Fungal Diversity (2001), in press.

Holotype: on *Solanum glaucophyllum*, Argentina, La Plata, Buenos Aires, 30 Jan. 1892, C. Spegazzini (LPS 933).

CHUPP (1954: 529, Fig. 185).

Notes: BRAUN et al. (2001) assigned this species to *Passalora* based on the re-examination of type material and some additional new collections on *Solanum glaucophyllum* (= *S. glaucum*).

4. *Cercospora balansae* Speg., Anal. Soc. Cient. Argent. 16: 167 (1883) [basionym]

≡ *Passalora balansae* (Speg.) U. Braun **comb. nov.**

Fig. 1

Holotype: on *Evolvulus* sp., Paraguay, Caá-guazú, Jan. 1882, B. Balansa No. 3524 (LPS 930).

CHUPP (1954: 168).

Primary mycelium internal; secondary mycelium external, hyphae emerging through stomata, superficial, creeping or climbing leaf hairs, branched, septate, 4-9 µm diam., pale to medium brown, smooth; conidiophores solitary, arising from secondary hyphae, lateral, occasionally terminal, 10-300 x 4-7 µm, continuous to pluriseptate, concolorous with the hyphae; conidiogenous cells integrated, terminal, 10-80 µm long, scars thickened and darkened; conidia solitary, cylindrical (-obclavate), 20-75 x 4-8 µm, 1-5-septate, pale

olivaceous, smooth, apex obtuse, base obconically truncate, hila somewhat thickened and darkened.

Notes: This species is a typical *Mycovellosiella*, but based on new molecular examinations the latter genus as well as *Phaeoramularia* have been reduced to synonymy with *Passalora* (CROUS et al. 2001).

5. *Cercospora bignoniicola* Speg., Anal. Soc. Cient. Argent. 16: 170 (1883)

Holotype: on *Bignonia* sp., Paraguay, Caá-guazú, Jan. 1882, B. Balansa No. 3497 (LPS 932).

CHUPP (1954: 83).

Notes: As already stated by CHUPP (1954), the type was too meagre for a careful examination. However, some traces of fruiting have been found. The conidiophores were long, up to $175 \times 6 \mu\text{m}$, septate, brownish below, paler towards the apex, somewhat thick-walled and percurrently (enteroblastically) proliferating. A few obclavate conidia, up to $80 \times 8 \mu\text{m}$, 5-6-distoseptate and pale olivaceous have been observed. The generic affinity of this fungus is not yet clear, but, in any case, it does not belong to the complex of cercosporoid fungi.

6. *Cercospora bomplandiana* Speg., Anal. Mus. Nac. B. Aires 20: 439 (1910) [basionym]
= *Pseudocercospora bomplandiana* (Speg.) U. Braun **comb. nov.** Fig. 2

Holotype: on *Baccharis genistelloides*, Argentina, Bompland, Misiones, Sep. 1909, P. Joergensen (LPS 941).

CHUPP (1954: 125).

Primary mycelium internal; secondary mycelium external, hyphae superficial, creeping, emerging through stomata, branched, septate, subhyaline to pale olivaceous, smooth; stomata small, brown, substomatal. Conidiophores in small fascicles, emerging through stomata or solitary, arising from creeping hyphae, $5-50 \times 4-7 \mu\text{m}$, hardly geniculate, pale brown, continuous or with few septa; scars inconspicuous. Conidia solitary, obclavate-subcylindric, about $100-120 \times 4-5 \mu\text{m}$ ($60-210 \times 5-6.5 \mu\text{m}$, according to CHUPP, 1954), 6-7-septate, pale brownish.

Notes: Based on conidiogenous cells with inconspicuous scars, this species is placed in *Pseudocercospora*.

7. *Cercospora brachypoda* Speg., Anal. Soc. Cient. Argent. 13: 28 (1882) [basionym]

= *Pseudocercospora brachypoda* (Speg.) U. Braun **comb. nov.** Fig. 3

Holotype: on *Hibiscus* sp., Argentina, Recoleta, Feb. 1881, C. Spegazzini (LPS 927).

CHUPP (1954: 370).

Notes: This species had been fully described by CHUPP (1954). Nothing can be added, except that the conidiogenous loci are inconspicuous, so that this species must be referred to *Pseudocercospora*.

8. *Cercospora calotropidis* Speg., Anal. Mus. Nac. B. Aires 26: 132 (1914), homonym, non *C. calotropidis* Ellis & Everh. 1898

= *Cercospora calotropidis* Ellis & Everh. (according to SYDOW & AHMAD 1939).

Type: on *Calotropis procera*, Africa, Senegal (not seen, probably not preserved).

Notes: *C. calotropidis* is common and widespread in Asia, Africa, West Indies and northern South America. Numerous collections of this species, deposited at IML, K and NY, have been examined, including types of *C. calotropidis* Ellis & Everh. (NY, IMI 7752) and

Cladosporium calotropidis F. Stevens (K, IMI 19791) as well as some exsiccatae (e.g., Cif., Mycofl. Doming. Exs. 307; Herb. Crypt. Ind. Orient. Exs. 7, IMI). A full description has been given by CHUPP (1954: 70-71). *C. calotropidis* is very variable and intermediate between *Mycovellosiella*, *Passalora* and *Phaeoramularia*. The conidiogenous loci and hila are conspicuous, slightly thickened and somewhat darkened. In most collections, the conidiophores are fasciculate and the conidia are formed singly (= *Passalora*-like), but occasionally the conidia may be formed in chains (= *Phaeoramularia*-like). However, in a few collections some secondary superficial hyphae with solitary conidiophores have been observed (= *Mycovellosiella*-like). Thus, *C. calotropidis* clearly shows that *Passalora*, *Phaeoramularia* and *Mycovellosiella* must be lumped (CROUS et al. 2001): ***Passalora calotropidis*** (Ellis & Everh.) U. Braun **comb. nov.**

≡ *Cercospora calotropidis* Ellis & Everh., Ann. Rep. Missouri Bot. Garden 9: 120 (1898).
≡ *Phaeoramularia calotropidis* (Ellis & Everh.) Kamal, A.S. Moses & R. Chaudhary, Mycol. Res. 94: 716 (1990).

= *Cercospora microsora* Pat., in R.P. Duss, Champignons de la Guadeloupe, 3^e Sér.: 91, Paris 1902, homonym, non *C. microsora* Sacc. 1880.

≡ *Cercospora patouillardii* Sacc., Syll. Fung. 18: 608 (1906).

= *Cercospora calotropidis* Lingelsh., Bot. Jahrb. 39: 605 (1907), homonym.

≡ *Cercospora lingelshemii* Sävil. & Rayss, Ann. Crypt. Orient. 8: 49 (1935).

= *Cercospora inconspicua* Pat. & Har., Bull. Soc. Mycol. Fr. 24: 16 (1909).

= *Napicladium calotropidis* H. Morstatt, Ann. Mycol. 10: 451 (1913).

= *Cercospora calotropidis* Speg., Anal. Mus. Nac. B. Aires 26: 132 (1914), homonym.

≡ *Cercosporina calotropidis* Sacc., in Trotter, Syll. Fung. 25: 897 (1931) [as "(Speg.) Sacc.", but de facto a nom. nov.].

= *Cladosporium calotropidis* F. Stevens, Trans. III. Acad. Sci. 10: 207 (1917).

9. *Cercospora calystegiae* Speg., Anal. Mus. Nac. B. Aires II, 3: 341 (1899)

≡ ***Passalora calystegiae*** (Speg.) U. Braun, in Braun & Melnik, Trudy Bot. Inst. Im. V.L. Komarova, St. Petersburg 20: 45 (1997).

Holotype: on *Calystegia sepium*, Argentina, La Plata, Ensenada, 1 Apr. 1888, C. Spegazzini (LPS 940).

CHUPP (1954: 169).

Notes: This species has already been reassessed by BRAUN (in BRAUN and MELNIK 1997).

10. *Cercospora campi-silii* Speg., Michelia 2: 171 (1880)

≡ ***Passalora campi-silii*** (Speg.) U. Braun, Mycotaxon 55: 228 (1995).

Syntypes: Decad. Mycol. Ital. 109 (FH, PAD, W).

CHUPP (1954: 77).

11. *Cercospora caricae* Speg., Anal. Soc. Cient. Argent. 16: 168 (1883)

≡ ***Asperisporium caricae*** (Speg.) Maubl., Lavoura 16: 212 (1913).

Holotype: on *Carica papaya*, Paraguay, Guarapi, Feb. 1881, B. Balansa 2739 (LPS).

CHUPP (1954: 106).

12. *Cercospora cordobensis* Speg., Anal. Soc. Cient. Argent. II, 10: 32 (1880) [basionym]

≡ ***Passalora cordobensis*** (Speg.) U. Braun **comb. nov.**

≡ *Cercosporina cordobensis* (Speg.) Speg., Bol. Acad. Nac. Cienc. Córdoba 29: 179 (1926).

≡ *Cercosporidium cordobensis* (Speg.) C.E. García & N. Pons, Fitopatol. Venezolana 9(2): 28 '1996' (1997).

Holotype: on *Ipomoea megapotamica*, Argentina, Córdoba, without date, Lorentz (LPS 926), not seen.

Notes: The holotype could not be traced, but GARCÍA and PONS (1996) re-examined it, provided a detailed description, good illustration and, based on pigmented conidia, assigned it to *Cercosporidium*. The latter genus is, however, a synonym of *Passalora* (ARX 1983, DEIGHTON 1990, BRAUN 1995a,b).

On the other hand, original material collected in 1925 by C. Spegazzini has been examined (on *Ipomoea megapotamica*, Argentina, Córdoba, Alta Gracia, 16 Feb. 1925, C. Spegazzini, LPS 1086). SPEGAZZINI'S (l.c.) transfer of this species to *Cercosporina* was undoubtedly based on this collection, which, however, does not agree with the holotype. The conidia are obclavate-fusiform, colourless, pluriseptate, with minute hila, 1-1.5 µm diam. The collection from 1925 is very close to *Cercospora ipomoeae-pes-caprae* J.-M. Yen & Lim to which it should be assigned.

13. *Cercospora cordyline* Speg., Rev. Mus. La Plata 15: 45 (1908), homonym (non *C. cordyline* Henn. 1902)

Type: on *Corydine dracaenoides*, Brazil, São Paulo, botanical garden, Sep. 1905, A. Usteri No. 14 (not seen).

Notes: The status of *C. cordyline* Speg. is not quite clear. CHUPP (1954: 344) reduced it to synonymy with *C. cordyline* Henn., which was reallocated to *Passalora* by CROUS and CÂMARA (1998). Type material of Spegazzini's species could not be traced at LPS and is possibly not preserved in this herbarium. BRAUN (1998a) examined topotype material on *Corydine dracaenoides* collected by A. Usteri in 1905, but this sample turned out to be a species of *Pseudocercospora* which was described as *P. cordyline* U. Braun.

14. *Cercospora crotoniphila* Speg., Bol. Acad. Nac. Cienc. Córdoba 23: 528 (1919)

≡ *Passalora crotoniphila* (Speg.) Crous, in Crous et al., Sydowia (2001), in press.

≡ *Pseudocercospora crotoniphila* (Speg.) Crous et al., Mycotaxon 72: 177 (1999).

Holotype: on *Croton* sp., Paraguay, Trinidad, 1892, J.L. Anisitz 258/259 (LPS 957).

CHUPP (1954: 216).

Notes: Type material of this species has been examined by CROUS et al. (2001). The conidiogenous loci and hila are thickened and darkened and the conidia are pigmented. The wrong combination *Pseudocercospora crotoniphila* was based on non-type material from Brazil.

15. *Cercospora cucurbitina* Speg., Anal. Soc. Cient. Argent. 16: 166 (1883) [basionym]

≡ *Pseudocercospora cucurbitina* (Speg.) U. Braun **comb. nov.**

Fig. 4

Holotype: on cf. *Cyclanthera* sp. (Cucurbitaceae), Paraguay, Caá-guazú, Jan. 1882, B. Balansa No. 3514 (LPS 928).

CHUPP (1954: 187).

Notes: Little can be added to CHUPP'S (1954) description. Some secondary hyphae have been observed, rarely with solitary conidiophores. The conidiophores are usually arranged in dense, often subsynnematus fascicles. The conidia are formed singly, obclavate-subcylindric, 35-65 x 3-6 µm, 1-4(-5)-septate and pale olivaceous. Scars and hila are unthickened and non-pigmented.

16. *Cercospora densissima* Speg., Anal. Mus. Nac. B. Aires 6: 341 (1899)

≡ *Cercospora sidaecola* Ellis & Everh., J. Mycol. 5: 72 (1889).

Holotype: on *Sida rhombifolia*, Argentina, B. Aires, 27 Feb. 1892, C. Spegazzini (LPS 935).
CHUPP (1954: 377).

17. *Cercospora dubia* Speg., Anal. Soc. Cient. Argent. 9: 191 (1880), homonym, non *C. dubia* (Riess) G. Winter 1886

≡ *Cercospora spegazzinii* Sacc., Syll. Fung. 4: 475 (1886).

≡ *Passalora spegazzinii* (Sacc.) U. Braun, in Braun et Melnik, Trudy Bot. Inst. Im. Komarova, St. Petersburg 20: 94 (1997).

Holotype: on *Celtis tala*, Argentina, B. Aires, Barracas del Sur, Feb. 1880, C. Spegazzini (LPS 907).

Notes: This species has been re-examined and reallocated by Braun (in BRAUN and MELNIK 1997).

Cercospora faseolina, see *C. phaseolina*

18. *Cercospora fumosa* Speg., Anal. Soc. Cient. Argent. 9: 191 (1880) [basionym]

≡ *Pseudocercospora fumosa* (Speg.) U. Braun **comb. nov.** Fig. 5

Holotype: on *Araujia albens*, Argentina, B. Aires, San José de Flore, Mar. 1880, C. Spegazzini (LPS 905).

CHUPP (1954: 73).

Notes: Little can be added to CHUPP's (1954) description. The conidiogenous loci are inconspicuous. The conidiophores are occasionally branched and decumbent, and the conidia are 1-4(-5)-septate.

19. *Cercospora furfurella* Speg., Anal. Soc. Cient. Argent. 26: 72 (1888) Fig. 6

Holotype: on *Boerhaavia discolor*, Paraguay, Guarapó, Dec. 1883, B. Balansa No. 4105 (LPS 924).

CHUPP (1954: 409-410).

Notes: This is a true species of *Cercospora* s.str., but distinct from *C. apii* s.lat. in having obclavate conidia and narrower conidiogenous loci.

20. *Cercospora gay-lussaci* Speg., Rev. Mus. La Plata 15: 46 (1908)

Holotype: on *Gaylussacia* sp., Brazil, Ipiranga, Cambucy, Sep. 1905, A. Usteri No. 74 (LPS 952).

CHUPP (1954: 207).

Notes: No fungus corresponding to Spegazzini's and Chupp's descriptions has been found. The status of *C. gay-lussaci* is unclear.

21. *Cercospora gilbertii* Speg., Anal. Soc. Cient. Argent. 10: 38 (1880) [basionym]

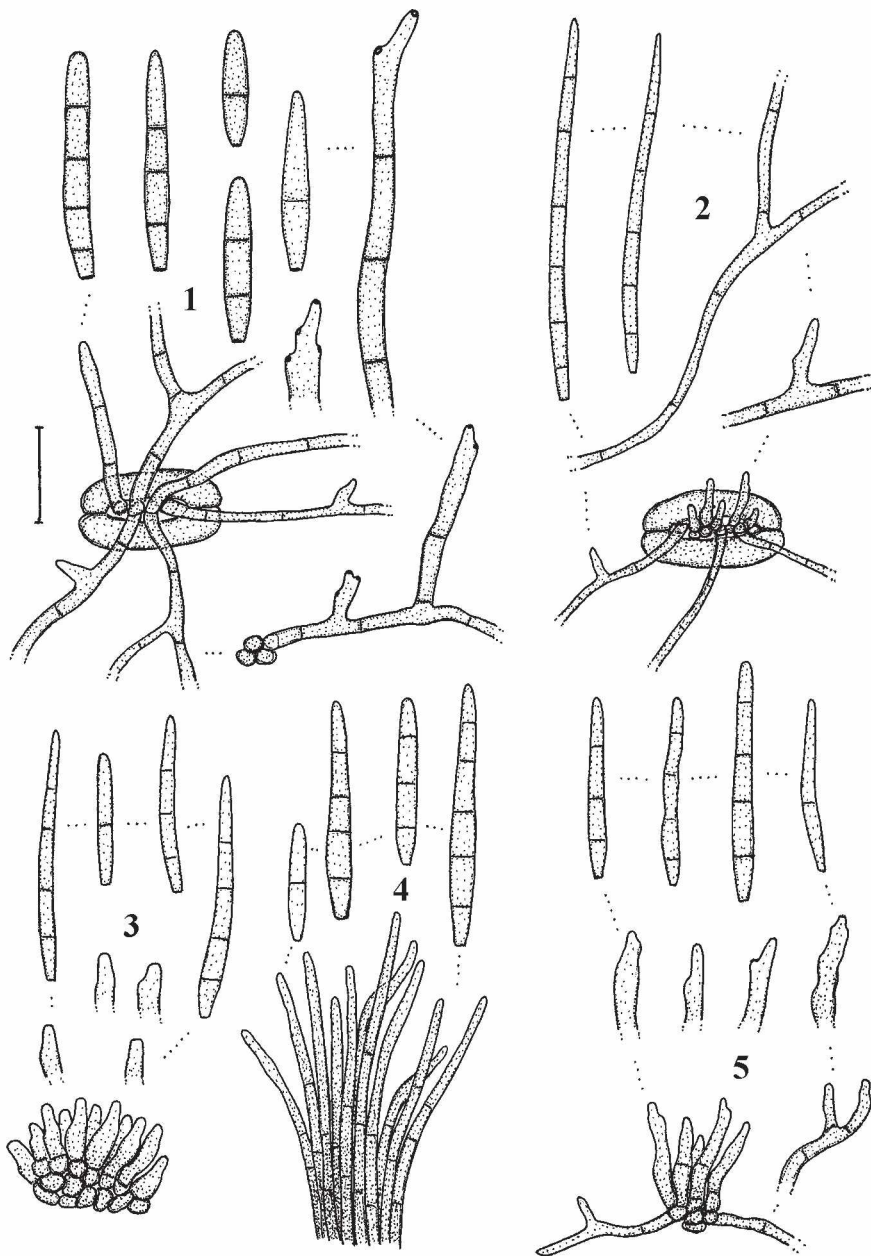
≡ *Passalora gilbertii* (Speg.) U. Braun **comb. nov.**

≡ *Phaeoramularia gilbertii* (Speg.) U. Braun, Schlechtendalia 2: 11 (1999).

Type: on *Iresine celosiae*, Uruguay, Montevideo, 1876, G. Gilbert No. 908 (not seen).

CHUPP (1954: 33).

Notes: Type material could not be traced at LPS and is possibly not preserved. Based on material from Ecuador (Syd., Fungi exot. exs. 1047, HBG), BRAUN (1999) placed this species in the genus *Phaeoramularia* which has recently been reduced to synonymy with *Passalora* (CROUS et al. 2001).



Figs 1-5: Conidiophore fascicles, conidiophores, conidia, 1 – *Passalora balansae*, 2 – *Pseudocercospora bomplandiana*, 3 – *P. brachypoda*, 4 – *P. cucurbitina*, 5 – *P. fumosa*, scale = 20 μ m, U. Braun del.

22. *Cercospora gillesii* Speg., Anal. Soc. Cient. Argent. 13: 29 (1882)

Holotype: on *Philibertia gillesii*, Argentina, B. Aires. Gral. Lavalle, Ajó, Dec. 1880, C. Spegazzini (LPS 913).

CHUPP (1954: 73).

Notes: The generic affinity of *C. gillesii* is unclear. Only some conidiophore fragments have been observed, which are, however, not sufficient to reassess this species.

23. *Cercospora gomphrenicola* Speg., Anal. Soc. Cient. Argent. 13: 29 (1882) [basionym] ≡ ***Passalora gomphrenicola*** (Speg.) U. Braun **comb. nov.**

≡ *Phaeoramularia gomphrenicola* (Speg.) Muntañola, Lilloa 30: 209 (1960).

Holotype: on *Gomphrena glauca*, Argentina, B. Aires, Palermo, Feb. 1881, C. Spegazzini (LPS 914). Isotype: IMI 7706.

CHUPP (1954: 34).

Notes: Based on morphological as well as molecular examinations, *Phaeoramularia* has recently been reduced to synonymy with *Passalora*.

24. *Cercospora guaranitica* Speg., Anal. Soc. Cient. Argent. 16: 170 (1883) [basionym] ≡ ***Pseudocercospora guaranitica*** (Speg.) U. Braun **comb. nov.** Fig. 7

Holotype: on *Seguiera guaranitica*, Paraguay, Caá-guazú, Jan. 1882, B. Balansa No. 3442 (LPS 923).

CHUPP (1954: 437)

Notes: Little can be added to CHUPP's (1954) description. The conidiogenous loci are inconspicuous, so that *C. guaranitica* has to be placed in *Pseudocercospora*. There is, however, a disagreement with regard to the septation of the conidia. CHUPP (1954) described 'indistinctly multiseptate conidia', but I found only 0-2-septate ones.

25. *Cercospora hyptidis* Speg., Bol. Acad. Nac. Cienc. Córdoba 11: 614 (1889) [basionym] ≡ ***Passalora hyptidis*** (Speg.) U. Braun **comb. nov.**

≡ *Phaeoisariopsis hyptidis* (Speg.) U. Braun, Mycotaxon 51: 46 (1994).

Holotype: on *Hyptis* sp., Brazil, São Paulo, Apiahy, Jan. 1880, Puiggari 2477 (LPS 938).

CHUPP (1954: 266).

Notes: *Phaeoisariopsis* spp. with distinct scars and geniculate conidiogenous cells have been reduced to synonymy with *Passalora* (DEIGHTON 1990, CROUS et al. 2001).

26. *Cercospora jatrophae* Speg., Anal. Mus. Nac. B. Aires 20: 440 (1910) [basionym] ≡ ***Pseudocercospora jatrophae*** (Speg.) U. Braun **comb. nov.**

Holotype: on *Jatropha macrocarpa*, Argentina, Catamarca, Feb. 1904, C. Spegazzini? (LPS 943).

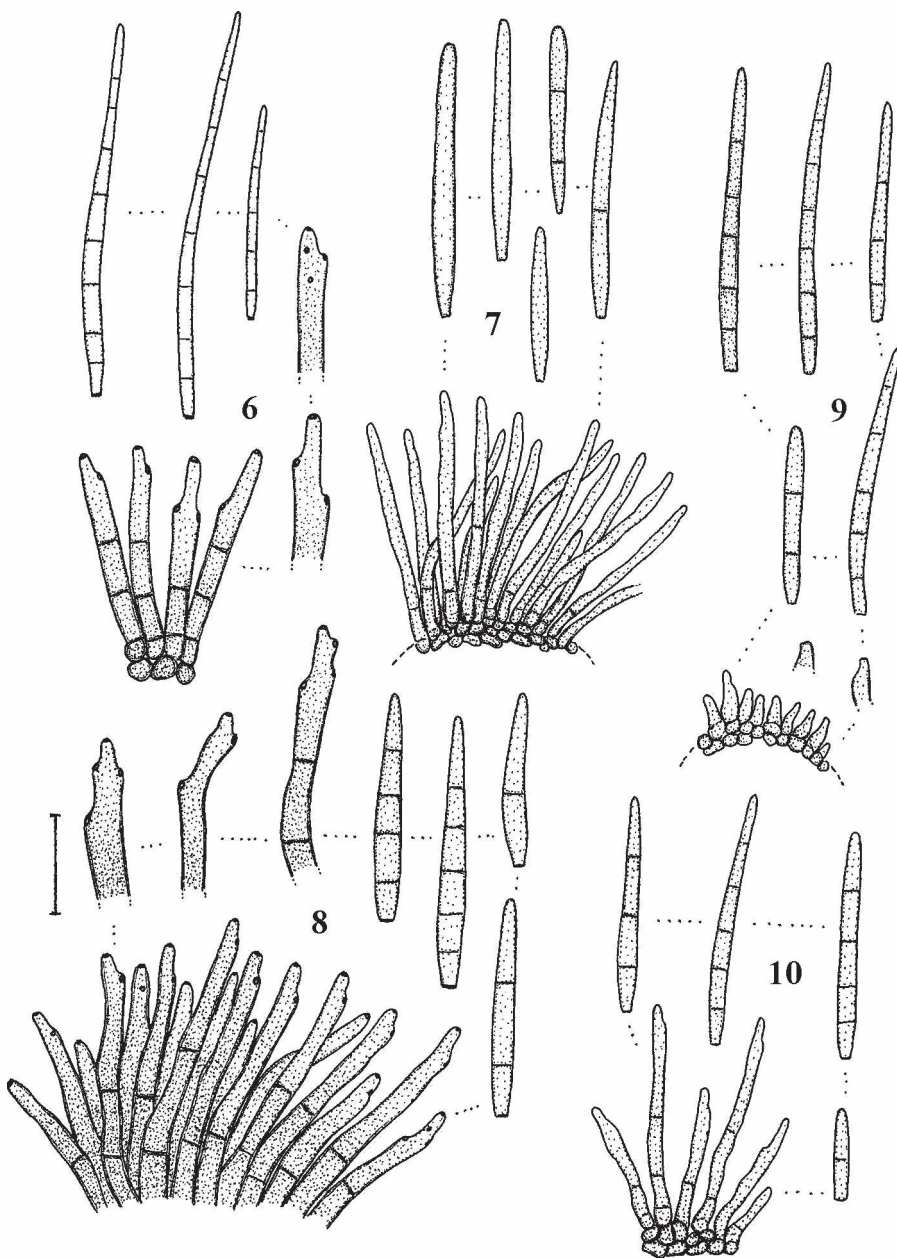
CHUPP (1954: 223).

Notes: The holotype bore little of the fungus, but it was possible to confirm that it belongs in *Pseudocercospora*. The conidiophores were very short, olivaceous brown and showed no trace of conidial scars. The conidia were obclavate-subcylindric, 30-65 x 4.5-5.5 µm, 1-3-septate, subhyaline to pale olivaceous with obconically truncate base.

27. *Cercospora leprosa* Speg., Anal. Soc. Cient. Argent. 16: 167 (1883) [basionym]

≡ ***Passalora leprosa*** (Speg.) U. Braun **comb. nov.** Fig. 8

Lectotype: on *Tecoma* sp., Paraguay, Peribebuy, 1883, B. Balansa No. 3865 (LPS 920), selected here.



Figs 6-10: Conidiophore fascicles, conidiophores, conidia, 6 – *Cercospora furfurella*, 7 – *Pseudocercospora guaranítica*, 8 – *Passalora leprosa*, 9 – *Pseudocercospora mate*, 10 – *P. megalopotamica*, scale = 20 μ m, U. Braun del.

CHUPP (1954: 86).

Notes: Little can be added to CHUPP's (1954) description of this species, except that the conidial scars are conspicuous, somewhat thickened and darkened. The conidia are pigmented, and the conidiophores are formed in large to very large fascicles, arising from large stromata, up to 500 µm diam.

28. *Cercospora lingue* Speg., Bol. Acad. Nac. Cienc. Córdoba 25: 114 (1921)

Holotype: on *Persea lingue*, Chile, Los Perales, 1918 (LPS 958).

CHUPP (1954: 274).

Notes: According to CHUPP (1954), this species should probably be listed as an *Helminthosporium*. Little fruiting of this fungus has been found, but it could be confirmed that *C. lingue* does not pertain in *Cercospora* s.lat. and that the conidiogenesis is rather enteroblastic. The generic affinity remains, however, unclear.

29. *Cercospora magellanica* Speg., Bol. Acad. Nac. Cienc. Córdoba 11: 306 (1887)

Holotype: on *Ribes magellanicum*, Argentina, Tierra del Fuego, May 1882, C. Spegazzini (LPS 960).

CHUPP (1954: 517).

Excluded, non-cercosporoid (see CHUPP 1954).

30. *Cercospora megalopotamica* Speg., Anal. Soc. Cienc. Argent. 13: 29 (1882) [basionym]

≡ *Pseudocercospora megalopotamica* (Speg.) U. Braun **comb. nov.** Fig. 10

Holotype: on *Bidens bipinnata*, Argentina, B. Aires, Palermo, 18 May 1881, C. Spegazzini (LPS 915).

CHUPP (1954: 146).

Notes: The type material of *C. megalopotamica* is in poor condition, but some conidiophores and conidia have been found without any traces of thickened, darkened conidial scars and hila, so that this species has to be assigned to *Pseudocercospora*.

31. *Cercospora meliicola* Speg., Ann. Mus. Nac. B. Aires 20: 440 (1910)

= *Cercospora apii* Fresen. s.lat.

Holotype: on *Melia azedarach*, Argentina, Oran Salta, Mar. 1905, C. Spegazzini (LPS 944).

CHUPP (1954: 385).

Notes: The type material contains three elements, i.e., a *Cercospora* s.str. which is morphologically indistinguishable from *C. apii*, traces of *Pseudocercospora subsessilis* (Syd. & P. Syd.) Deighton and conidiophores of a third hyphomycete. CHUPP's (1954) description refers to the true *Cercospora* with acicular, pluriseptate, hyaline conidia to which this name should be confined. CHUPP's (1954) treatment should be considered a lectotypification, and the two other elements should be excluded.

32. *Cercospora mitracarpi* Speg., Bol. Acad. Nac. Cienc. Córdoba 11: 614 (1889)

Holotype: on *Mitracarpum* sp., Brazil, Apiahy, São Paulo, 1888, J. Puiggari No. 2607 (LPS 939).

CHUPP (1954: 498).

Notes: CHUPP (1954) stated that the type only shows an *Alternaria*-like fungus, which could be confirmed.

33. *Cercospora myrticola* Speg., Anal. Soc. Cient. Argent. 16: 167 (1883)

≡ *Pseudocercospora myrticola* (Speg.) Deighton, Mycol. Pap. 140: 148 (1976).

Holotype: on an undetermined host belonging to the Myrtaceae (*Myrtus* sp.?), Paraguay, Caá-guazú, Jan. 1882, B. Balansa (LPS).

CHUPP (1954: 407), CROUS (1999: 613).

Notes: It could be confirmed that the type material of *C. myrticola* is morphologically indistinguishable from European collections on *Myrtus communis*, including type material of *Cercospora myrti* Erikss. (S) and *Fusariella cladosporioides* P. Karst. (H).

34. *Cercospora oxalidiphila* Speg., in herb.

= *Cercospora corniculatae* Hansf., Proc. Linn. Soc. London 1942-43: 56 (1943).

= *Cercospora oxalidiphila* Speg. ex Chupp & A.S. Mull., Bol. Soc. Venez. Cienc. Nat. 8(52): 52 (1942), nom. inval. (without Latin description).

On *Oxalis* sp., Argentina, B. Aires, Riachuelo, Feb. 1880, C. Spegazzini (LPS 962).

Notes: Only some fragments of conidiophores and conidia have been found. Based on these structures and Spegazzini's drawing on the label, it can be stated that this fungus is a member of *Cercospora* s.str. close to or identical with *C. apii* s.lat.

35. *Cercospora palmicola* Speg., Anal. Soc. Cient. Argent. 26: 72 (1888) [basionym]

≡ *Drechslera palmicola* (Speg.) F. Anderson, M.V. Bianchinotti & U. Braun **comb. nov.**

Holotype: on *Cocos australis*, Paraguay, Guarapí, 5 Oct. 1883, B. Balansa No. 4070 (LPS).

CHUPP (1954: 429).

Notes: CHUPP (1954) considered this fungus an *Helminthosporium*, but it seems rather to be a *Drechslera*. The conidiophores are caespitose, 35-50 x 5-6 µm, brown, with integrated, terminal, polytretic conidiogenous cells. The conidia are subcylindric-obclavate, 35-70 x 6-9 µm, thick-walled, pale brown, smooth and 4-7-distoseptate.

36. *Cercospora paludicola* Speg., Anal. Soc. Cient. Argent. 13: 29 (1882) [basionym]

≡ *Pseudocercospora paludicola* (Speg.) U. Braun **comb. nov.**

Fig. 11

Holotype: on *Polygonum* sp., Argentina, B. Aires, Ensenada, 13 Feb. 1881, C. Spegazzini (LPS 916).

CHUPP (1954: 449).

Notes: Little fructification has been found in the type collection, but some secondary hyphae with solitary conidiophores, a few fascicles of very short conidiophores (20-25 x 2-4 µm), arising from small brown stromata, and some conidia (100-150 x 2-2.5 µm), corresponding to CHUPP's (1954) description, could be observed. The conidial scars and hila are neither thickened nor darkened, so that this species has to be placed in *Pseudocercospora*.

37. *Cercospora pareirae* Speg., Anal. Mus. Nac. B. Aires 20: 440 (1910) [basionym]

≡ *Pseudocercospora pareirae* (Speg.) U. Braun **comb. nov.**

Fig. 12

Holotype: on *Cissampelos pareira*, Argentina, Tucumán, 15 Apr. 1906, C. Spegazzini (LPS 945).

CHUPP (1954 : 390).

Notes: The holotype material is well-developed with rich fructification. Little can be added to CHUPP's (1954) description. The stromata are up to 60 µm diam., usually

intraepidermal; the conidiophores are up to 65 µm long, and the conidia are obclavate-subcylindric, subhyaline to pale olivaceous. Since the conidial scars are inconspicuous, this species has to be assigned to *Pseudocercospora*.

38. *Cercospora phaeochlora* Speg., Anal. Mus. Nac. B. Aires 20: 441 (1910)
≡ ***Pseudocercospora phaeochlora*** (Speg.) U. Braun, R. Delhey & M. Kiehr, Fungal Diversity (2001), in press.

Holotype: on *Lithraea brasiliensis*, Argentina, B. Aires, botanical garden, 28 Apr. 1906, C. Spegazzini (LPS 947).

CHUPP (1954: 41).

Notes: Based on the examination of type material and a new collection on *Lithraea molleoides* (Argentina, Belgrano, 21 Jul. 1994, R. Delhey, BB, HAL), BRAUN et al. (2001) reallocated this species to *Pseudocercospora*.

39. ***Cercospora phaseolina*** Speg., Anal. Mus. Nac. Cient. Argent. 13: 28 (1882)

Holotype: on *Phaseolus ovatus*, Argentina, B. Aires, Palermo, 15 May 1881, C. Spegazzini (LPS 912).

CHUPP (1954: 306), BRAUN (1994: 37 and Fig. 1).

Notes: This species is a true *Cercospora* s.str. distinct from *C. apii* s.lat. It has been redescribed and illustrated by BRAUN (1994).

40. *Cercospora physalidicola* Speg., Anal. Soc. Mus. Nac. B. Aires II, 3: 342 (1899), homonym, non *C. physalidicola* Ellis & Barthol. 1896

= *Cercospora apii* s.lat.

Holotype: on *Physalis viscosa*, Argentina, B. Aires, La Plata, 26 Mar. 1889, C. Spegazzini (LPS 936).

CHUPP (1954: 547).

Notes: Some conidiophore fascicles and some acicular, colourless conidia, agreeing with CHUPP's (1954) description, have been seen. *C. physalidicola* is morphologically indistinguishable from *C. physalidis* Ellis emend. U. Braun (in BRAUN & MELNIK 1997), except for the lesions that are indistinct in *C. physalidicola*. However, the substrate of the latter species is an old, brown, fully necrotic leaf of *Physalis viscosa*, indicating a saprobic habit of this species. Based on morphological, biological as well as molecular investigations, *C. physalidis* emend., growing on a wide range of hosts belonging to the Solanaceae, must be reduced to synonymy with *C. apii* s.lat., which ranges from being pathogenic, causing leaf spots on living and fading hosts, to saprobic.

Cercosporina physalidicola Speg. was also described on *Physalis viscosa* and is possibly an additional synonym of *C. apii* s.lat. (incl. *C. physalidis*, see SUTTON & PONS 1980). The condition of the type material of *Cercosporina physalidicola* is poor, but traces of fruiting have been found that indicate that this species is also morphologically indistinguishable from *C. apii* s.lat.

41. *Cercospora pircuniae* Speg., Anal. Mus. Nac. B. Aires 20: 441 (1910)

Holotype: on *Phytolacca dioica*, Argentina, B. Aires, La Plata, Pereyra, 5 May 1906, C. Spegazzini (LPS 946).

CHUPP (1954: 438).

Notes: Only a few catenate, cylindrical, pale olivaceous, 2-4-septate conidia agreeing

with CHUPP's (1954) description have been found. The hila of the conidia were unthickened, not darkened, but somewhat refractive. Hence, this species could be a species of *Pseudocercospora* with catenate conidia, but the type material is too poor for a final conclusion.

42. *Cercospora platensis* Speg., Anal. Soc. Cient. Argent 10(1): 33 (1880) [basionym]
≡ ***Pseudocercospora platensis*** (Speg.) U. Braun **comb. nov.** Fig. 13

Holotype: on *Muehlenbeckia sagittata*, Argentina, B. Aires, Recoleta, Apr. 1880, C. Spegazzini (LPS 910).

CHUPP (1954: 450).

Notes: The type collection of this species is in good condition. The fructification examined corresponds well with the original diagnosis and CHUPP's (1954) description. The conidiophores are formed in moderately large fascicles, arising from substomatal, occasionally intraepidermal stromata. They are short, pale olivaceous and 0-1-septate. The conidia are formed singly, obclavate-subcylindric, subhyaline to pale olivaceous. The scars and hila are unthickened and non-pigmented.

43. *Cercospora porrigo* Speg., Anal. Mus. Nac. B. Aires II, 3: 341 (1899)

= ***Fusicladium pyrurum*** (Lib.) Fuckel, Jahrb. Nass. Ver. Naturk. 23-34: 357 (1870).

Holotype: on *Pyrus*, Argentina, B. Aires, La Plata, Nov. 1894, C. Spegazzini (LPS 934).

CHUPP (1954: 483).

44. *Cercospora puccinioides* Speg., Anal. Mus. Nac. B. Aires 20: 441 (1910) [basionym]
≡ ***Exosporium puccinioides*** (Speg.) F. Anderson, M.V. Bianchinotti & U. Braun **comb. nov.**

Fig. 14

Holotype: on *Collea argentina*, Argentina, Córdoba, Jan. 1908, C. Spegazzini (LPS 948).
CHUPP (1954: 327).

Notes: CHUPP (1954) excluded this species and considered it an *Helminthosporium*. Based on the structure of the conidiogenous loci and hila as well as conidia, this species may rather be placed in *Exosporium*: Leaf posts lacking or almost so, occasionally forming diffuse discolorations. Colonies hypophyllous, forming dense, dark brown to sooty patches, 1-3 mm diam. or confluent and larger. Stromata well-developed, immersed, brown, with decumbent threads arising from the stromata. Conidiophores arising from stromata, fasciculate, or solitary, arising from decumbent hyphae, erect, subcylindric-filiform, simple or branched, 20-60 x 3-5 µm, occasionally longer, olivaceous, olivaceous brown, wall somewhat thickened, smooth, septate; conidiogenous cells integrated, terminal, 10-40 µm long, polytretic, loci 1.5-2 µm diam., darkened around the pore. Conidia solitary, obclavate-subcylindric, 20-60 x 4-8 µm, 0-6-septate, eu- and distosepta mixed, wall somewhat thickened, smooth, apex obtuse, base obconically truncate, darkened.

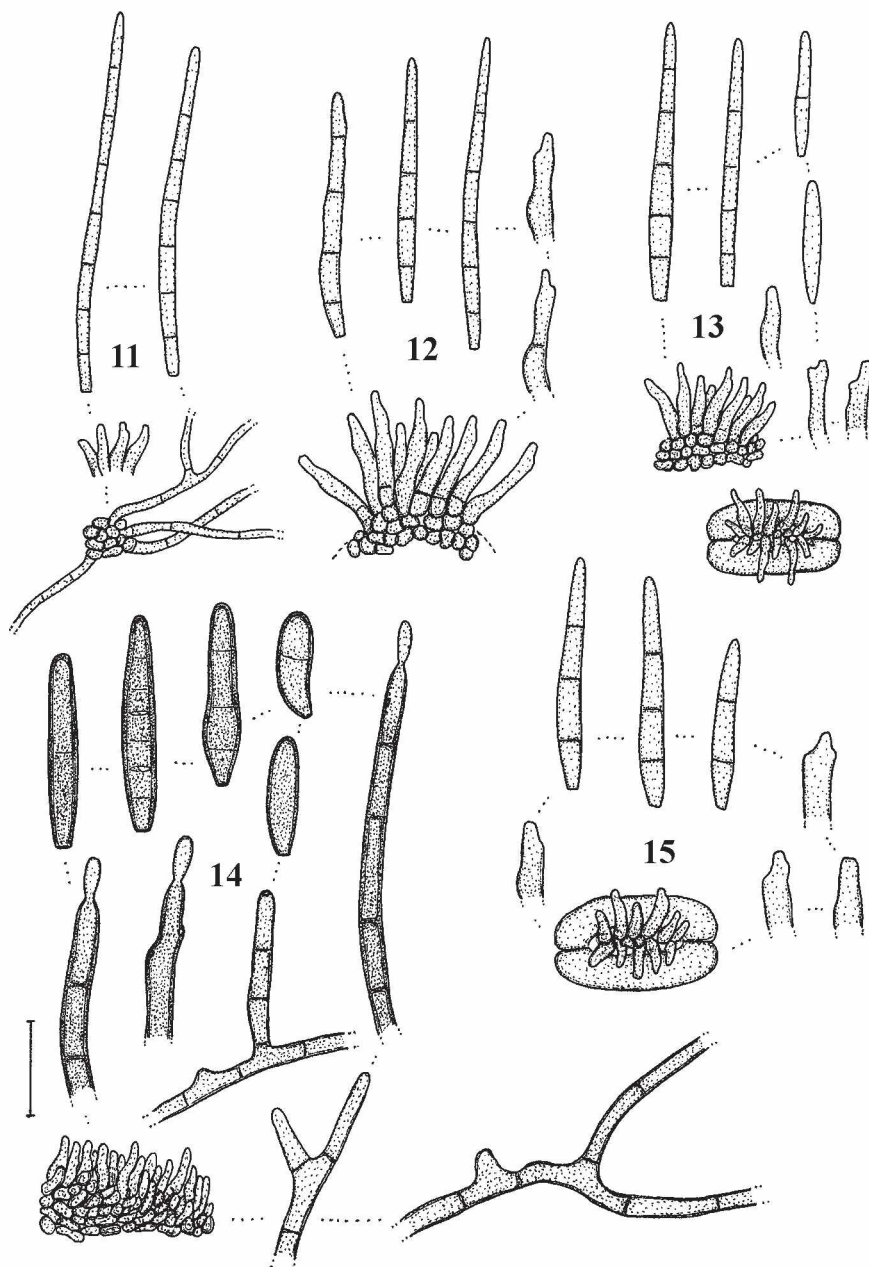
45. *Cercospora riachueli* Speg., Anal. Soc. Cient. Argent. 9: 313 (1880)

≡ ***Pseudocercospora riachueli*** (Speg.) Deighton, Mycol. Pap. 140: 129 (1976).

Holotype: on *Cissus palmata*, Argentina, B. Aires, la Boca del Riachuelo, Mar. 1880, C. Spegazzini (LPS 909).

CHUPP (1954: 604).

46. *Cercospora ricini* Speg., Anal. Mus. Nac. B. Aires II, 3: 343 (1899)
= *Cercospora ricinella* Sacc. & Berlese, Atti R. Ist. Ven. Sci. Lett. Art. VI, 3: 721 (1885).
Holotype: on *Ricinus communis*, Argentina, Tucumán, Feb. 1895, C. Spegazzini (LPS 937).
CHUPP (1954 : 229).
47. *Cercospora smilacina* Speg., Revista Mus. La Plata 15: 46 (1908), homonym, non *C. smilacina* Sacc. 1881
≡ *Cercospora pycnidioides* Chupp (1954: 353).
Type: on *Smilax* sp., Brazil, São Paulo, A. Usteri No. 953 (not seen).
Notes: It is unclear if type material of this species is preserved. Its status and the relation to *Passalora smilacis* (Thüm.) U. Braun are also unclear.
48. *Cercospora sapiicola* Speg., Anal. Mus. Nac. B. Aires 20: 442 (1910)
≡ *Pseudocercospora sapiicola* (Speg.) U. Braun, Schlechtendalia 2: 23 (1999) Fig. 15
Holotype: on *Sapium aucuparium*, Argentina, Puerto León, Misiones, Jul. 1909, Venturi No. 130 (LPS 949).
CHUPP (1954: 230).
Notes: Based on material from Costa Rica (on *Sapium verum*), BRAUN (1999) reallocated this species to *Pseudocercospora*. The type collection and the material from Costa Rica are conspecific and agree very well.
49. *Cercospora solimani* Speg., Anal. Soc. Cient. Argent. 16: 167 (1883)
= *Phaeoisariopsis griseola* (Sacc.) Ferraris, Ann. Mycol. 7: 280 (1909).
Holotype: on an unidentified legume (*Phaseolus* sp.), Paraguay, Caá-guazú, Jan. 1882, B. Balansa No. 3492 (LPS 918).
CHUPP (1954: 333).
Notes: DEIGHTON (1990) considered *C. solimani* a synonym of *Phaeoisariopsis griseola*, which could be confirmed. The type collections is plentiful. The conidiophores are arranged in dense fascicles or synnematosous conidiomata. The conidial scars are rather inconspicuous, unthickened, not or hardly darkened, at most somewhat refractive.
50. *Cercospora sphaeroidea* Speg., Anal. Soc. Cient. Argent. 16: 169 (1883)
= *Passalora occidentalis* (Cooke) U. Braun **comb. nov.**
≡ *Cercospora occidentalis* Cooke, Hedwigia 17: 39 (1878).
Holotype: on *Cassia corymbosa*, Argentina, B. Aires, San José de Flores, 15 Apr. 1880, C. Spegazzini (LPS 911), not see.
CHUPP (1954: 334).
Notes: Type material of this species was not available, and it is unclear if it is preserved at LPS, but DEIGHTON (1979) dealt with *C. sphaeroidea* and assigned it to *Phaeoramularia occidentalis* (Cooke) Deighton. However, *Phaeoramularia* has been reduced to synonymy with *Passalora* (CROUS et al. 2001).
51. *Cercospora stylosanthis* Speg., Anal. Soc. Cient. Argent. 16 : 169 (1883)
≡ *Passalora stylosanthis* (Speg.) U. Braun, Mycotaxon 55: 236 (1995) Fig. 16
Holotype: on *Stylosanthes* sp., Paraguay, Caá-guazú, Jan. 1882, B. Balansa No. 3528 (LPS 922). Isotype: NY.



Figs 11-15: Conidiophore fascicles, conidiophores, conidia, 11 – *Pseudocercospora paludicola*, 12 – *P. pareirae*, 13 – *P. platensis*, 14 – *Exosporium puccinioides*, 15 – *Pseudocercospora sapiicola*, scale = 20 μ m, U. Braun del.

CHUPP (1954: 335).

Notes: Based on type material, it could be confirmed that the placement of this species in *Passalora* is correct.

52. *Cercospora tandilensis* Speg., Anal. Soc. Cient. Argent. 13: 30 (1882)
= *Cercospora apii* s.lat.

Holotype: on *Hybanthus parviflorus* (= *Ionidium glutinosum*), Argentina, B. Aires, Sierra de Tandil, Jan. 1881, C. Spegazzini (LPS 917).

CHUPP (1954: 599), BRAUN et al. (2001).

53. *Cercospora tupae* Speg., Rev. Fac. Agron. La Plata, Esp. 2, 6: 187 (1910)

Holotype: on *Lobelia tupa*, Chile, Valdivia, 1909, C. Spegazzini (LPS 959).

CHUPP (1954: 358).

Notes: CHUPP (1954) excluded this species and supposed that 'it probably should be classed as an *Heterosporium*'. However, the conidial scars are quite distinct from *Cladosporium* (incl. *Heterosporium*) scars and the sporodochial conidiomata and conidia remind one of *Asperisporium*, but the latter genus is well-distinguished by having thickened, darkened scars and hila. The conidiogenous loci and hila in *C. tupae* are, however, truncate, flat, neither thickened nor darkened and agree with those of *Fusicladium* spp. There are a few species in the latter genus with verruculose conidia, e.g., *Fusicladium lathyrium* (Ellis & Galloway) S. Hughes & Piroz., *F. picicola* Lindford and *F. psoraleae* (Ellis & Barthol.) S. Hughes & Piroz., but *C. tupae* differs from *Fusicladium* spp. in forming sporodochial conidiomata with substomatal stromata and densely fasciculate conidiophores emerging through stomata. The features of the conidiomata are rather *Asperisporium*-like. Therefore, the following new anamorph genus is proposed for *C. tupae*:

***Pseudoasperisporium* U. Braun gen. nov.**

Ab *Asperisporio* cicatricibus et hiliis truncatis, planis, non-incrassatis, non-fuscatis differt.

Close to *Asperisporium*, but distinguished by truncate, flat, unthickened, non-darkened conidial scars and hila.

Type species: *Cercospora tupae* Speg.

***Pseudoasperisporium tupae* (Speg.) U. Braun comb. nov.**

Fig. 17

≡ *Cercospora tupae* Speg., Fungi Chilenses: 187 (1910).

Leaf spots indistinct to subcircular, 2-8 mm diam., yellowish-ochraceous, margin indistinct to somewhat darker, later becoming dark by abundant fructification. Conidiomata hypophyllous, sporodochial, scattered to dense, punctiform, dark brown to blackish. Mycelium internal. Stromata well-developed, substomatal, brown. Conidiophores densely fasciculate in small sporodochia, emerging through stomata, erect, straight, subcylindric, occasionally conic or subclavate, 10-20 x 5-12 µm, aseptate, pale olivaceous, verrucose-echinulate, conidiophores reduced to conidiogenous cells, loci more or less truncate, broad, flat, neither thickened nor darkened, scars inconspicuous. Conidia solitary, ellipsoid-ovoid, obovoid, rarely short cylindrical to subclavate, occasionally somewhat angular, 35-60 x 8-17 µm, 1-3-septate, often constricted at the septa, pale olivaceous to brown, verrucose

to verrucose-echinulate, apex broadly rounded, base truncate to somewhat obconically truncate, flat, broad, hilum neither thickened nor darkened.

54. *Cercospora usteriana* Speg., Rev. Mus. La Plata 15: 46 (1908)

≡ *Pseudocercospora usteriana* (Speg.) U. Braun, Mikol. i Fitopatol. 30(4): 8 (1996).

Holotype: on an unidentified host belonging to the Myrtaceae (*Psidium* sp.?), Brazil, São Paulo, botanical garden, Sep. 1905, A. Usteri (LPS 954). Isotype: LEP.

CHUPP (1954: 408), CROUS (1999: 617).

55. *Cercospora vasconcelliae* Speg., Anal. Soc. Cient. Argent. 16: 168 (1883) [basionym]

≡ *Asperisporium vasconcelliae* (Speg.) U. Braun **comb. nov.** Fig. 18

Holotype: on *Vasconcellia quercifolia*, Paraguay, Guarapi, Jun. 1883, B. Balansa No. 3857 (LPS 921).

CHUPP (1954: 108).

Notes: The type material was in good condition and plentiful. According to CHUPP (1954), this species 'could better be classed as an *Helminthosporium* or some other related genus'. However, the conidiogenesis is polyblastic, the conidiophores are fasciculate, verrucose-rugose and possess integrated, terminal conidiogenous cells with numerous aggregated thickened, darkened scars. The conidia are formed singly, 1-4-septate, pigmented, verrucose and possess thickened, darkened basal hila. Therefore, this species has to be placed in *Asperisporium*:

Leaf spots absent or formed as angular-irregular discolorations, greenish, greyish, later dark by abundant fructification, 1-4 mm diam. or confluent and larger. Caespituli hypophyllous, punctiform to subeffuse, confluent, dark brown, blackish brown. Mycelium internal. Conidiophores in loose to dense fascicles, numerous to very numerous, sporodochial, erect, straight to curved, subcylindric-subclavate, geniculate-sinuous, unbranched, 20-50(-80) x 4-10 µm, 0-2(-3)-septate, pale to medium olivaceous brown, wall thin to slightly thickened, verrucose-rugose; conidiophores reduced to conidiogenous cells or integrated, terminal, 20-30 µm long, scars conspicuous, terminal, numerous, aggregated, 1.5-2 µm diam., thickened, darkened, sometimes subdenticulate. Conidia solitary, ellipsoid-ovoid, obclavate, subcylindric, (9-)12-30 x 4-7(-8) µm, with 1-4 transverse septa, rarely muriform, pale olivaceous, almost smooth to verrucose, apex obtuse, base obconically truncate, hilum about 2 µm diam., somewhat thickened and darkened.

56. *Cercospora verbeniphila* Speg., Bol. Acad. Nac. Cienc. Rep. Argent. 29: 179 (1926)

≡ *Passalora verbeniphila* (Speg.) Crous & U. Braun, Mycotaxon 57: 310 (1996).

Type: on *Verbena bonariensis*, Argentina, Córdoba, C. Spegazzini No. 221 (not preserved). Neotype: on *Verbena* sp., Argentina, La Plata, Pereyra, 5 Apr. 1955, J.C. Lindquist (LPS 26329), selected here. Isonotype: IMI 63160.

CHUPP (1954: 596).

Notes: Type material of this species was not available and is undoubtedly not preserved. Therefore, the present neotypification is proposed. Additional material on *Verbena bonariensis* from South Africa (CROUS & BRAUN 1996) and New Zealand (Auckland, Western Spring Park, 13 Apr. 2000, C.F. Hill, LYN 162A) has been examined.

57. *Cercospora volkameriae* Speg., Revista Mus. La Plata 15: 47 (1908)

= ***Cercospora apii*** s.lat.

Holotype: on *Volkameria fragrans*, Brazil, São Paulo, botanical garden, Sep. 1905, A. Usteri No. 36 (LPS 955).

CHUPP (1954: 597).

Notes: This species is characterised by having brown conidiophores with thickened, darkened conidial scars and solitary acicular colourless conidia with thickened, darkened hila. Lesions, conidiophores and conidia are morphologically indistinguishable from *C. apii* s.lat.

58. *Cercospora yerbae* Speg., Anal. Mus. Nac. B. Aires, Ser. III, 10 : 140 (1909) [basonym]

≡ ***Pseudocercospora yerbae*** (Speg.) U. Braun **comb. nov.** Fig. 19

Holotype: on *Ilex amara*, Argentina, Villa Encarnación, Misiones, Jan. 1907, C. Spegazzini (LPS 956).

CHUPP (1954: 55).

Notes: The type collection of this species was in good condition and plentiful. Little can be added to CHUPP's (1954) description except for the structure of the conidiogenous loci and hila which are unthickened and non-pigmented, so that this species has to be assigned to *Pseudocercospora*.

59. *Cercosporina asparagicola* Speg., Anal. Mus. Nac. B. Aires 20: 424 (1910)

= ***Cercospora asparagi*** Sacc., Michelia 1: 88 (1878).

Holotype: on *Asparagus officinalis*, Argentina, La Plata, botanical garden, 6 May 1906, C. Spegazzini (LPS 4966). Isotype: IMI 247001 (slide).

CHUPP (1954: 343), SUTTON & PONS (1980: 203).

60. *Cercosporina caracallae* Speg., Anal. Mus. Nac. B. Aires 20: 425 (1910)

= ***Cercospora apii*** s.lat.

Holotype: on *Phaseolus caracalla*, Argentina, Tucuman, 14 Apr. 1906, C. Spegazzini (LPS 4049). Isotype: IMI 120631 (slide).

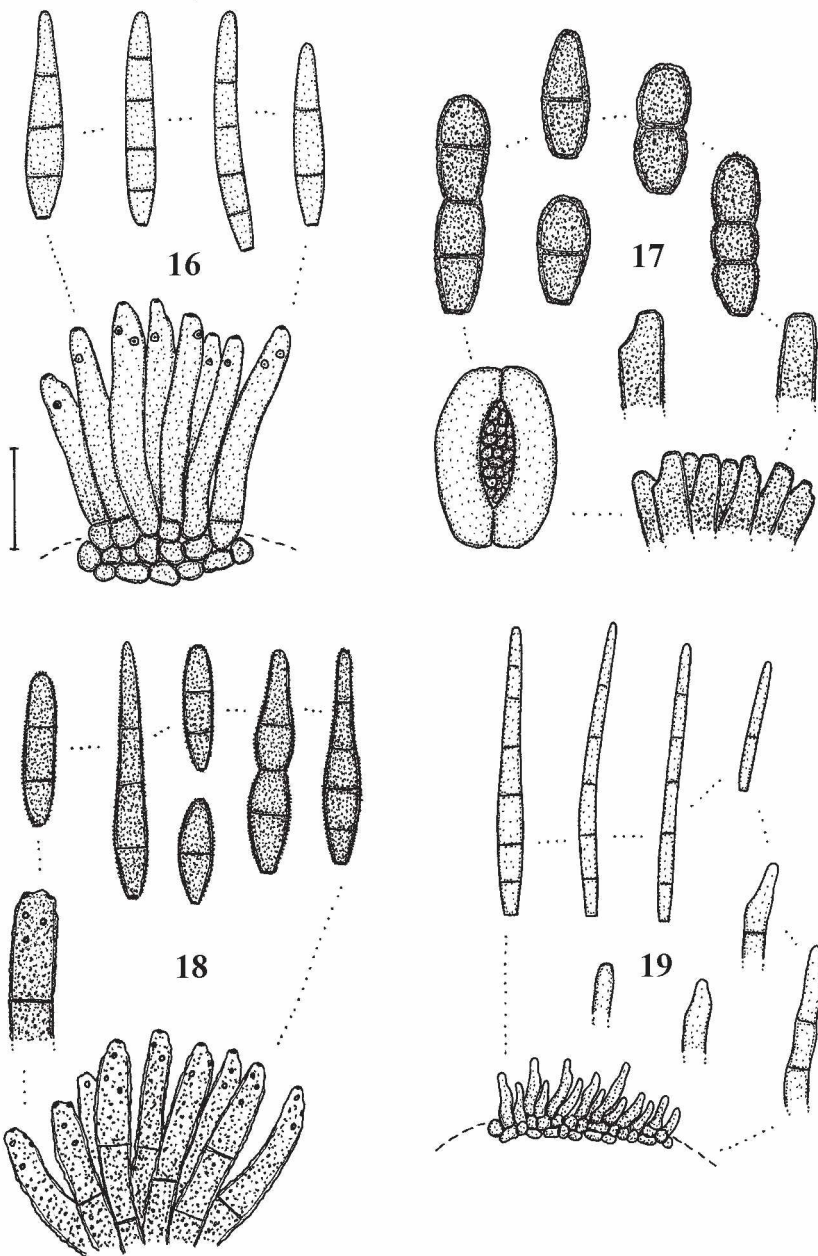
CHUPP (1954: 289), SUTTON & PONS (1980: 204, Fig. 11A).

Notes: My own observations agreed with those of SUTTON and PONS (1980). A few acicular, colourless conidia up to 100 x 4 µm and strongly geniculate olivaceous brown conidiophores, 40-80 x 5-6 µm, with thickened, darkened scars have been observed. According to SUTTON and PONS (1980), 'the conidiophores seem to be too short and closely geniculate for typical *Cercospora canescens*'. However, the conidiophore length and degree of geniculation are extremely variable and often influenced by environmental impacts in *C. canescens* as well as *C. apii* to which the former species has to be assigned. Furthermore, the features of the lesions in *C. caracallae* coincide very well with those of *C. apii* (incl. *C. canescens*). Spegazzini described and illustrated acicular conidia, which could be found in the type material, but CHUPP's (1954) description of cylindrical conidia does not agree and seems to be based on other collections.

61. *Cercosporina daturicola* Speg., Anal. Mus. Nac. B. Aires 20: 425 (1910)

= ***Cercospora apii*** s.lat.

Holotype: on *Datura stramonium*, Argentina, La Plata, Apr. 1904, C. Spegazzini (LPS 12774). Isotype: IMI 120631 (slide).



Figs 16-19: Conidiophore fascicles, conidiophores, conidia, 16 – *Passalora stylosanthidis*, 17 – *Pseudoasperisporium tupae*, 18 – *Asperisporium vasconcelliae*, 19 – *Pseudocercospora yerbae*, scale = 20 μ m, U. Braun del.

CHUPP (1954: 537), SUTTON & PONS (1980: 205, Fig. 1B).

Notes: This species is indistinguishable from other *Cercospora* spp. on hosts of the Solanaceae [= *Cercospora physalidis* Ellis emend. U. Braun & Melnik (BRAUN & MELNIK 1996)]. However, the latter species must be reduced to synonymy with *C. apii*.

62. *Cercosporina donell-smithii* Speg., Bol. Acad. Nac. Cienc. Córdoba 23: 590 (1919) ≡ ***Cercospora donell-smithii*** (Speg.) Chupp (1954: 573).

Holotype: on *Myrrhidendron donell-smithii*, Costa Rica, Volcan Poás, Dec. 1896, A. Tonduz (LPS).

CHUPP (1954: 573).

Notes: The type material was too meagre and poor for a detailed study, but some conidiophore fragments and conidia could be observed. The scars were thickened and darkened, and the conidia were obclavate-subcylindric to subacicular, subhyaline, pluriseptate, with a thickened, darkened basal hilum. This is a true *Cercospora* s.str. distinct from *C. apii* s.lat.

63. *Cercosporina hydrangeicola* Speg., Anal. Mus. Nac. B. Aires 20: 426 (1910) ≡ ***Cercospora apii* s.lat.**

Holotype: on *Hydrangea* sp., Argentina, La Plata, 8 May 1909, C. Spegazzini (LPS 4050). Isotype: IMI 247005 (slide).

CHUPP (1954: 517), SUTTON & PONS (1980: 209).

Notes: This species is identical with *C. hydrangeae* Ellis & Everh., which has to be reduced to synonymy with *C. apii*.

64. *Cercosporina jatrophiicola* Speg., Anal. Mus. Nac. B. Aires 20: 426 (1910) ≡ ***Cercospora jatrophiicola*** (Speg.) Chupp (1954: 223).

Holotype: on *Jatropha macrocarpa*, Argentina, Tucuman, 11 Apr. 1906, C. Spegazzini (LPS 4766). Isotype: IMI 247006 (slide).

CHUPP (1954: 223), SUTTON & PONS (1980: 210).

NOTES: SUTTON and PONS (l.c.) did not find any fructifications on the holotype corresponding to Spegazzini's description. However, I was successful and found a few conidiophores and conidia well corresponding to CHUPP's (l.c.) description of this fungus. This species is a true *Cercospora* s.str. with thickened, darkened scars and obclavate-subcylindric to subacicular conidia, which are distinct from *C. apii* s.lat.

65. *Cercosporina mate* Speg., Anal. Mus. Nac. B. Aires 20: 426 (1910) [basionym]

≡ ***Pseudocercospora mate*** (Speg.) U. Braun **comb. nov.**

Fig. 9

Lectotype: on *Ilex paraguensis*, Argentina, Santa Anna, Jun. 1909, B. Zamboni (LPS), selected here. Isolectotype: LPS.

CHUPP (1954: 53), SUTTON & PONS (1980: 210).

NOTES: SUTTON and PONS (l.c.) examined original material of this species collected by J. Torre at San Ignacio, which was devoid of any fructification, but did not see the second specimen cited in Spegazzini's original description. This collection is from Santa Anna, and there are two duplicates with identical labels. One of these collections has sufficient fructification, agrees well with CHUPP's (l.c.) description and is chosen to serve as lectotype. Little can be added to CHUPP's (l.c.) description. However, the scars and hila are unthickened

and not darkened. A third collection from Spegazzini's herbarium with some traces of fructification has been examined (on *Ilex paraguensis*, Argentina, San Ignacio, Aug. 1908, B. Zamboni, LPS 4048).

66. *Cercosporina physalidicola* Speg., Anal. Mus. Nac. B. Aires 20: 426 (1910)
= ***Cercospora apii* s.lat.**

Holotype: on *Physalis viscosa*, Argentina, B. Aires, Marmol, 16 May 1905, C. Spegazzini (LPS 12517).

CHUPP (1954: 547), SUTTON & PONS (1980: 211).

Notes: see *Cercospora physalidicola*.

67. *Cercosporina sciadophila* Speg., Anal. Mus. Nac. Hist. Nat. B. Aires 31: 439 (1922)
≡ *Cercospora sciadophila* (Speg.) Chupp (1954: 549).

Type: on *Solanum violaeifolium*, Paraguay, Asunción, Jul. 1919, C. Spegazzini (not seen).
CHUPP (1954: 549).

Notes: The type collections was not examined by CHUPP (l.c.), could not be traced at LPS and is undoubtedly not preserved. The status of this species is unclear.

68. *Cercosporina sensitivae* Speg., Anal. Mus. Nac. B. Aires 20: 427 (1910)
≡ *Cercospora sensitivae* (Speg.) Chupp (1954: 330).

Holotype: on *Mimosa sensitiva*, Argentina, Orán, Salta, Jan. 1906, C. Spegazzini (LPS 12499). Isotype: IMI 247010 (slide).

CHUPP (1954: 330), SUTTON & PONS (1980: 213).

Notes: The type material was very meagre and in poor condition, but a few relatively small subcylindric-fusoid, hyaline conidia, agreeing with CHUPP's (l.c.) description, have been observed. The material is, however, not sufficient to discuss the generic affinity of this species.

69. *Cercosporina sphaeralceicola* Speg., Anal. Mus. Nac. B. Aires 20: 427 (1910)
≡ *Cercospora sphaeralceicola* (Speg.) Chupp (1954: 377).

= ***Cercospora apii* s.lat.**

Holotype: on *Sphaeralcea patagonica*, Argentina, La Plata, 5 Nov. 1904, C. Spegazzini (LPS 4051). Isotype: IMI 247011 (slide).

Notes: My own observations agree well with those of CHUPP (l.c.). A few brown conidiophores (100-150 x 4-5 µm) with thickened, darkened scars and hyaline, acicular, pluriseptate conidia (60-100 x 2-5 µm) have been found. *C. sphaeralceicola* is indistinguishable from many other *Cercospora* spp. on hosts of the Malvaceae which have to be reduced to synonymy with *C. apii*.

70. *Cercosporina stenolobiicola* Speg., Anal. Mus. Nac. B. Aires 20: 428 (1910)
≡ *Cercospora stenolobiicola* (Speg.) Chupp (1954: 88).

Holotype: on *Stenolobium (Tecoma) stans*, Argentina, Tucuman, 13 Apr. 1906, C. Spegazzini (LPS 4045). Isotype: IMI 247012 (slide).

CHUPP (1954: 88), SUTTON & PONS (1980: 215).

Notes: No fungus corresponding to the original description has been found. The status and generic affinity of this species is unclear.

71. *Cercosporina tetragoniae* Speg., Anal. Mus. Nac. B. Aires 20: 429 (1910)
≡ *Cercospora tetragoniae* (Speg.) Siemaszko, Mat. Mikol. Fitopatol. Rossii 1(3): 40 (1915).
= ***Cercospora apii* s.lat.**

Holotype: on *Tetragonia expansa*, Argentina, La Plata, 18 Nov. 1909, C. Spegazzini (LPS 16153). Isotype: IMI 247013 (slide).

Notes: The type collection is in poor condition, but a few conidiophores and conidia could be found. *C. tetragoniae* is a true *Cercospora* s.str. indistinguishable from *C. apii* s.lat.

Acknowledgements:

Sincere thanks are due to Prof. R. Delhey, Argentina, for the organisation of the visit at Bahía Blanca and FOMEC for financial support. Furthermore, I would like to thank Dr. A. M. Arambarri, herbarium LPS, for offering the possibility to examine Spegazzini's type collections of *Cercospora* spp.

Literature:

- ARX, J.A. von 1983: *Mycosphaerella* and its anamorphs. Proceedings of the Koninklijke Nederlandse Akademie van Wetenschappen, C **86**: 15-54.
- BRAUN, U. 1994: Miscellaneous notes on phytopathogenic hyphomycetes. Mycotaxon **51**: 37-68.
- BRAUN, U. 1995a: Miscellaneous notes on some phytopathogenic fungi (II). Mycotaxon **55**: 223-241.
- BRAUN, U. 1995b: A monograph of *Cercospora*, *Ramularia* and allied genera (phytopathogenic hyphomycetes). Vol. 1. Eching.
- BRAUN, U. 1998a: Miscellaneous notes on phytopathogenic hyphomycetes (III). Schlechtendalia **1**: 23-30.
- BRAUN, U. 1998b: A monograph of *Cercospora*, *Ramularia* and allied genera (phytopathogenic hyphomycetes). Vol. 2. Eching.
- BRAUN, U. 1999: Taxonomic notes on some species of the *Cercospora* complex (VI). Cryptogamie, Mycologie **20**: 155-177.
- BRAUN, U., DELHEY, R. & KIEHR, F. 2001: Some new cercosporoid hyphomycetes from Argentina. Fungal Diversity, in press.
- BRAUN, U. & MELNIK, V.A. 1997: Cercosporoid fungi from Russia and adjacent countries. Proceedings of the Komarov Botanical Institute, St. Petersburg, **20**: 1-130.
- CHUPP, C. 1954: A monograph of the fungus genus *Cercospora*. Ithaca, New York.
- CROUS, P.W. 1999: Species of *Mycosphaerella* and related anamorphs occurring on Myrtaceae (excluding *Eucalyptus*). Mycological Research **103**(5): 607-621.
- CROUS, P.W. & BRAUN, U. 1996: Cercosporoid fungi from South Africa. Mycotaxon **57**: 233-321.
- CROUS, P.W. & CÂMARA, M.P.S. 1998: Cercosporoid fungi from Brazil. 2. Mycotaxon **68**: 299-310.
- CROUS, P.W., APTROOT, A., KANG, J.-C., BRAUN, U. & WINGFIELD, M.J. 2000: The genus *Mycosphaerella* and its anamorphs. Studies in Mycology **45**: 107-121.
- CROUS, P.W., KANG, J.-C. & BRAUN, U. 2001: A phylogenetic redefinition of anamorph genera in *Mycosphaerella* based on ITS rDNA sequences. Mycologia, in press.
- DEIGHTON, F.C. 1974: Studies on *Cercospora* and allied genera. V. *Mycovellosiella* and a new species of *Ramulariopsis*. Mycological Papers **137**: 1-75.
- DEIGHTON, F.C. 1976: Studies on *Cercospora* and allied genera. VI. *Pseudocercospora* Speg., *Pantospora* Cif. and *Cercoseptoria* Petr. Mycological Papers **140**: 1-168.
- DEIGHTON, F.C. 1979: Studies on *Cercospora* and allied genera. VII. New species and redispositions. Mycological Papers **144**: 1-56.

- DEIGHTON, F.C. 1990: Observations on *Phaeoisariopsis*. Mycological Research **94**: 1096-1102.
- FARR, M.L. 1973: An annotated list of Spegazzini's fungus taxa. Vol. 1. Bibliotheca Mycologica **35**, 1: 1-823.
- GARCIA, C.E., PONS, N. & ROJAS, C.B. de 1996: *Cercospora* y hongos similares sobre especies de *Ipomoea*. Fitopatología Venezolana **9**(2): 22-36.
- PONS, N. & SUTTON, B.C. 1988: *Cercospora* and similar fungi on yams (*Dioscorea* spp.). Mycological Papers **160**: 1-78.
- SPEGAZZINI, C. 1910: Mycetes Argentinenses, Ser. V. Anales del Museo Nacional de Historia Natural de Buenos Aires **20**: 329-467.
- SUTTON, B.C. & PONS, N. 1980: Notes on the original species of *Cercosporina*. Mycotaxon **12**: 201-218.
- SYDOW, H. & AHMAD, S. 1939: Fungi Punjabense. Annales Mycologici **37**: 439-447.

Address of the author:

Dr. Uwe Braun, Martin-Luther-Universität Halle-Wittenberg, FB Biologie, Institut für Geobotanik und Botanischer Garten, Herbarium, Neuwerk 21, D-06099 Halle/Saale, BR Deutschland.
(e-mail: braun@botanik.uni-halle.de)

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Schlechtendalia](#)

Jahr/Year: 2000

Band/Volume: [5](#)

Autor(en)/Author(s): Braun Uwe

Artikel/Article: [Annotated list of Cercospora spp. described by C. Spegazzini 57-80](#)