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Passalora papaveris comb. nov. from China

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Abstract — The hyphomycete *Phaeoramularia papaveris* is recombined as *Passalora papaveris*. The species was originally collected on leaves of *Papaver nudicaule* during a taxonomic survey carried out in Inner Mongolia.

Key words — imperfect fungi, taxonomy

The main diagnostic character separating the two genera *Phaeoramularia* and *Passalora* is that *Passalora* forms solitary conidia. When Crous & Braun (2003: 19–22) emended the circumscription of *Passalora*, they placed *Phaeoramularia* in synonymy. Their observation that formation of single or catenate conidia is not tenable as a generic diagnostic character among cercosporoid hyphomycetes was confirmed by ITS and 5.8S rDNA sequence analyses (Crous et al. 2001). Accordingly, we here transfer the previously reported species, *Ph. papaveris* (Zhai et al. 2007), to *Passalora*.

Passalora papaveris (F.Y. Zhai, Y.L. Guo & Yu Li) F.Y. Zhai, Y.L. Guo & Yu Li, **comb. nov.**

MycoBank: MB519618

≡ *Phaeoramularia papaveris* F.Y. Zhai, Y.L. Guo & Yu Li, Mycotaxon 98: 233. 2007 ("2006")

Description and illustration; Zhai et al (2006: 234, Fig. 1).

Habitat and distribution: Known only from the type collection, on leaves of *Papaver nudicaule* L. (*Papaveraceae*), from Inner Mongolia.

The genus *Phaeoramularia* Munt.-Cvetk. was introduced for *Ramularia*-like dematiaceous hyphomycetes with fasciculate, simple or branched conidiophores and catenate conidia. The genus name *Phaeoramularia* has been widely

used, although some researchers argued that *Phaeoramularia* is morphologically not distinguishable from *Mycovellosiella, Stenella,* and other allied genera.

Passalora and *Phaeoramularia* are only differentiated by the mode of conidial formation, either formed singly or in chains. Conidial formation is, however, a weak feature to be employed at the generic level in this complex. In *Passalora*, there are even several intermediate taxa that occasionally form short conidial chains, e.g., *Passalora heterospora* (Höhn.) Höhn. and *P. aratai* (Speg.) U. Braun et al. Likewise, *Ramularia*, which comprises species with solitary and catenate conidia, is not reliably separated into smaller taxonomic units based on solitary or catenate conidial formation, as conidia occasionally form in short chains even in *Cercospora* s. str. (e.g., in *C. lactucae-sativae* Sawada).

Comparison of the above species indicates that formation of single or catenate conidia is not a tenable distinguishing character at generic rank amongst cercosporoid hyphomycetes and demonstrates why *Phaeoramularia* has been reduced to synonymy with *Passalora*. Molecular analyses by Crous et al. (2001) also show *Passalora, Phaeoramularia,* and *Mycovellosiella* species in nested clades that cannot be differentiated based on conidial morphology.

The three related hyphomycete species reported on *Papaveraceae* differ from *P. papaveris*. *Passolora bocconiae* (Chupp) U. Braun & Crous (≡ *Cercospora bocconiae* Chupp; Braun et al. 2002) on *Bocconia frutescens* L. has epiphyllous fruiting, slight stromata, longer conidiophores, and obclavate-cylindric, longer conidia. *Cercospora papaveris* Nakata (Takimoto 1918: 33) on *Papaver* spp. produces wider, dark brown conidiophores and larger (longer and wider) obclavate dark yellowish-brown conidia. *Cercospora papavericola* Chupp (Chupp 1954), also on *Papaver* spp., produces longer pale to medium olivaceous brown conidiophores and hyaline, acicular conidia.

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Literature cited

Braun U, Crous PW, Pons N. 2002. Annotated list of *Cercospora* species (epithets a–b) described by C. Chupp. Feddes Repertorium 113: 112–127.

Chupp C. 1954. A monograph of the fungus genus *Cercospora*. Ithaca, New York. 667 p.

Crous PW, Braun U. 2003. *Mycosphaerella* and its anamorphs: 1. Names published in *Cercospora* and *Passalora*. CBS Biodiversity Series No.1. 571 p.

Crous PW, Kang JC, Braun U. 2001. A phylogenetic redefinition of anamorph genera in *Mycosphaerella* based on ITS rDNA sequence and morphology. Mycologia 93(6): 1081–1101. doi:10.2307/3761670

Takimoto S. 1918. Diseases of medical plants. J. Chosen Agric. Soc. 13(11): 33.

Zhai FY, Guo YL, Li Y. 2007 ("2006"). A new species of *Phaeoramularia* on *Papaveraceae*. Mycotaxon 98: 233–235.