

U.S. Department of Agriculture, Agricultural Research Service
Systematic Mycology and Microbiology Laboratory - Nomenclature Fact Sheets

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Kalmusia coniothyrium

This fungus was originally described in the genus *Sphaeria*, as *Sphaeria coniothyrium* Fuckel 1870. It was transferred to *Leptosphaeria* by Saccardo in 1875, to *Melanomma* by Holm (1957) and to *Diapleella* by Barr (1986). It usually is referred to as *Leptosphaeria coniothyrium* in plant pathological literature (see, for example, Holevas et al. 2000) but it does not fit *Leptosphaeria* sensu stricto which has distinct morphological characters and a *Phoma* sect. *Plenodomus* anamorph. In the most recent systematic treatment, Huhndorf (1992) places it in the genus *Kalmusia*, as *Kalmusia coniothyrium* (Fuckel) Huhndorf 1992. *Sphaeria melantera* Peck 1878 and *Sphaeria hendersoniae* Ellis 1877 are listed by Barr (1992) as taxonomic synonyms.

This fungus frequently has been reported under the anamorph name *Coniothyrium fuckelii*. That name was recently transferred to *Microsphaeropsis* (Boerema 2003).

***Kalmusia coniothyrium* (Fuckel) Huhndorf 1992 (Ascomycetes, Pleosporales)**

≡ *Sphaeria coniothyrium* Fuckel 1870

≡ *Diaplella coniothyrium* (Fuckel) M.E. Barr 1986

≡ *Leptosphaeria coniothyrium* (Fuckel) Sacc. 1875

≡ *Melanomma coniothyrium* (Fuckel) L. Holm 1957

≡ *Leptosphaeria coniothyrium* f. *coniothyrium* (Fuckel) Sacc. 1875

≡ *Leptosphaeria coniothyrium* var. *coniothyrium* (Fuckel) Sacc. 1875

= *Sphaeria hendersoniae* Ellis 1877

≡ *Clypeosphaeria hendersoniae* (Ellis) Sacc. 1883

Leptosphaeria hendersoniae (Ellis) Cooke 1889 Note: Not (Ellis) Berl. 1892. Not (Fuckel) L. Holm 1957. As *Clypeosphaeria hendersoniae* under *Leptosphaeria* heading (Art. 33.1); no definite combination made, no description.

≡ *Leptosphaeria hendersoniae* (Ellis) Berl. 1892 Note: No written diagnosis, but with illustration of details (Art. 42.3). Not (Fuckel) L. Holm. 1957. Not (Ellis) Cooke 1889 nom. inval.

= *Sphaeria melantera* Peck 1878 [1875] Note: Not in library.

Alternate State (Anamorph): *Microsphaeropsis fuckelii* (Sacc.) Boerema

Distribution: Cosmopolitan.

Substrate: Stems (canes).

Disease Note: Cane and/or stem blight and canker. Wound parasite. Air, soil, and water-borne.

Host: *Rubus* spp. *Rosa* spp., and other Rosaceae. Wide range of hosts as a wound parasite.

Microsphaeropsis fuckelii (Sacc.) Boerema 2003

≡ *Coniothyrium fuckelii* Sacc. 1878

= *Coniothyrium fuckelii* f. *berberidis* Sacc.

= *Coniothyrium fuckelii* f. *berberidis-vulgaris* Sacc.

= *Coniothyrium fuckelii* f. *corrigiolae* Gonz. Frag.

[*Coniothyrium fuckelii* f. *fuckelii* Sacc.]

= *Coniothyrium fuckelii* f. *pinastri* Gonz. Frag.

= *Coniothyrium fuckelii* f. *thesii* Unamuno

= *Coniothyrium fuckelii* f. *zizyphi* Sacc.

= *Coniothyrium fuckelii* var. *cecidophilum* Massee

= *Coniothyrium fuckelii* var. *disticha* Sacc.

[*Coniothyrium fuckelii* var. *fuckelii* Sacc. 1878]

= *Coniothyrium fuckelii* var. *ribis-aurei* Gonz. Frag.

Variant spelling *Coniothyrium fuckelii* f. *ribis-aurei* Gonz. Frag.

Alternate State (Teleomorph): *Kalmusia coniothyrium* (Fuckel) Huhndorf

Notes: ITS and morphology similar to *Coniothyrium sporulosum* (Muthumeenakshi 2001, see also Verkley et al. 2004).

Distribution: Cosmopolitan.

Substrate: Canes (stems).

Disease Note: Cane and/or stem blight and canker. Wound parasite. Air, soil, and water-borne.

Host: *Rubus* spp. *Rosa* spp., and other Rosaceae. Wide range of hosts as a wound parasite.

Internal Note: Author changed from (Sacc.) Boerema ined. Varieties of *C. fuckelii* listed here as tax. syn. were not treated explicitly by Boerema.

Supporting Literature:

Barr, M.E. 1992. Additions to and notes on the Phaeosphaeriaceae (Pleosporales, Loculoascomycetes). *Mycotaxon* 43: 371-400.

Boerema, G.H. 2003. Contributions towards a monograph of *Phoma* (Coelomycetes) - X. *Persoonia* 18: 153-161.

Crane, J.L., and Shearer, C.A. 1991. A nomenclator of *Leptosphaeria* V. Cesati & G. DeNotaris. *Illinois Nat. Hist. Survey, Biol. Notes* 34: 1-355.

Huhndorf, S.M. 1992. Systematics of *Leptosphaeria* species found on the Rosaceae. *Illinois Nat. Hist. Survey, Biol. Notes* 34: 480-533.

Muthumeenakshi, S., Goldstein, A.L., Stewart, A., and Whipps, J.M. 2001. Molecular studies on intraspecific diversity and phylogenetic position of *Coniothyrium minitans*. *Mycol. Res.* 105: 1065-1074.

Verkley, G.J.M., da Silva, M., Wicklow, D.T., and Crous, P.W. 2004. *Paraconiothyrium*, a new genus to accommodate the mycoparasite *Coniothyrium minitans*, anamorphs of *Paraphaeosphaeria*, and four new species. *Stud. Mycol.* 50: 323-335.

Verified By: Erica On Jan 25, 2006

Additional Literature

Boerema, G.H., and Verhoeven, A.A. 1972. Check-list for scientific names of common parasitic fungi. Series 1a: fungi on trees and shrubs. *Netherlands J. Pl. Pathol.* 78 : 1-63

Holevas, C.D., Chitzanidis, A., Pappas, A.C., and et al. 2000. Disease agents of cultivated plants observed in Greece from 1981 to 1990. Benaki Phytopathol. Inst., Kiphissia, Athens. 19 : 1-96

Punithalingam, E. 1980. *Leptosphaeria coniothyrium*. C.M.I. Descript. Pathog. Fungi Bact. 663:1-2.

Written by Erica Cline, June 17, 2005.