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A new species of *Sphaceloma* on *Helicia* from ChinaHAI-YAN YANG^{1,2}, YUN-YUE WANG² & ZHONG-YI ZHANG[†]¹Chuxiong Normal University, Chuxiong, Yunnan 675000, China²Key Laboratory of Agro-Biodiversity and Pest Management of Education Ministry of China, Yunnan Agricultural University, Kunming, Yunnan 650201, China†CORRESPONDENCE TO: wangyykm@gmail.com

ABSTRACT—*Sphaceloma heliciae* sp. nov. on *Helicia formosana* is described and illustrated. The type specimen was collected from Xishuangbanna, Yunnan Province, China.

KEY WORDS—coelomycetes, identification, taxonomy

Introduction

The genus *Sphaceloma*, proposed by de Bary in 1874, contains 163 named species (Index Fungorum 2013), about 52 of which are currently accepted (Kirk et al. 2008). Many species have *Elsinoe* teleomorphic states. In China, 24 *Sphaceloma* spp. have been reported (Tai 1979; Wang et al. 1999; Guo 2001, 2005). Of the five *Sphaceloma* spp. that have been recorded on proteaceous hosts (*Elsinoe banksiae* Pascoe & Crous, *E. leucospermi* L. Swart & Crous, *E. proteae* Crous & L. Swart, *Sphaceloma banksiicola* Pascoe & Crous, and *S. protearum* L. Swart & Crous), none has been reported on *Helicia* (Swart et al. 2001; Pascoe & Crous 2007). We describe a new species found on leaves of *Helicia* from China, and distinguish it from the other five species on *Proteaceae*. The holotype specimen is conserved in Herbarium Mycologica of Yunnan Agricultural University, Kunming, China (MHYAU).

Sphaceloma heliciae H.Y. Yang & Z.Y. Zhang, sp. nov.

FIG. 1

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Differs from the *Sphaceloma* states of *Elsinoe banksiae* and *E. leucospermi* by its shorter, narrower conidiophores and its narrower, fusiform to ovoid conidia.

TYPE: China, Yunnan, Xishuangbanna, in living leaves of *Helicia formosana* Hemsl. (*Proteaceae*), Dec. 2009, Li-Xin (Holotype, MHYAU 13083).

ETYMOLOGY: referring to the host genus.

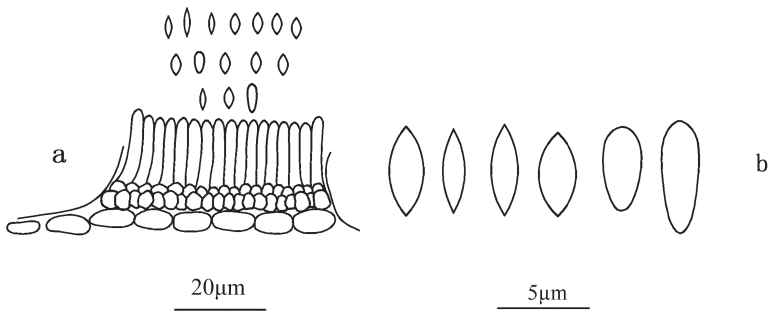


FIG. 1. *Sphaceloma heliciae* (holotype, MHYAU 13083): A. acervulus; B. conidia.

Scabs subrotund, amphigenous, ochroleucous, prominent, 0.8×1 mm. Acervuli subcuticular, scattered or aggregated, 31.0×51.7 μm , composed of cornuted cells, hyaline to brown. Conidiophores compactly arranged, continuous, hyaline, $13.1\text{--}23.9 \times 1.7\text{--}3.5$ μm . Conidia fusiform, ovoid or occasionally cylindrical, continuous, hyaline, $4.6\text{--}6.2 \times 1.3\text{--}2.1$ μm .

Discussion

The hosts and morphology of *Sphaceloma heliciae* and the five other species on proteaceous hosts are presented in TABLE 1. In addition to their association with different host genera, the five other species differ morphologically from *S. heliciae* by their broader ellipsoidal conidia and by either their broader conidiophores (*Elsinoe banksiae*, *E. leucospermi*, *S. banksiicola*, and *S. protearum*) or their lack of extended conidiophores (*E. proteae*).

TABLE 1. Host associations and morphology of *Sphaceloma/Elsinoe* species on proteaceous hosts.

SPECIES	HOST	CONIDIOPHORES (μm)	CONIDIA (μm)
<i>E. banksiae</i>	<i>Banksia serrata</i>	$20\text{--}30 \times 3\text{--}5$ subcylindrical	$4\text{--}6 \times 2\text{--}3$ ellipsoid
<i>E. leucospermi</i>	<i>Leucospermum cordifolium</i>	$20\text{--}30 \times 3\text{--}6$ subcylindrical	$5\text{--}7 \times 2.5\text{--}3$ ellipsoid
<i>E. proteae</i>	<i>Protea cynaroides</i>	reduced to conidiogenous cells	hjnbn
<i>S. protearum</i>	<i>Protea eximia</i>	$12\text{--}20 \times 5\text{--}6$ subcylindrical	$5\text{--}6 \times 2\text{--}2.5$ ellipsoid
<i>S. banksiicola</i>	<i>Banksia prionotes</i>	$8\text{--}20 \times 3\text{--}5$ subcylindrical	$8\text{--}9 \times 2.5\text{--}4$ ellipsoid
<i>S. heliciae</i>	<i>Helicia formosana</i>	$13\text{--}23 \times 0.7\text{--}3.5$ subcylindrical	$4.6\text{--}6.2 \times 1.3\text{--}2.1$ fusiform to ovoid

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