



Fungal Planet 52 – 23 December 2010

## *Sphaceloma freyliniae* Crous, sp. nov.

*Sphacelomatis protearum* simile, sed conidiis  $(3.5-4-6(-7) \times (2.5-3-4 \mu\text{m})$ .

*Etymology.* Named after the host from which it was collected, *Freylinia lanceolata*.

*Lesions* foliicolous, amphigenous, irregular, red-brown with indistinct margins, 1–6 mm diam. *Mycelium* internal, consisting of hyaline to pale brown, smooth, 3–4  $\mu\text{m}$  wide hyphae. *Conidiomata* sporodochial or acervular on leaves, cream to pale brown, wall composed of pale brown *textura angularis*, up to 300  $\mu\text{m}$  diam. *Conidiophores* subcylindrical to doliiform or ampulliform, hyaline to pale brown, smooth, 0–2-septate, unbranched or branched below,  $10-20 \times 3.5-5 \mu\text{m}$ . *Conidiogenous cells* enteroblastic, polyphialidic, hyaline to pale brown, smooth-walled, subcylindrical to doliiform or ampulliform,  $6-10 \times 3.5-4.5 \mu\text{m}$ ; collarettes and loci indistinct. *Conidia* hyaline, aseptate, ellipsoidal, apex obtuse, base subtruncate to bluntly rounded,  $(3.5-4-6(-7) \times (2.5-3-4 \mu\text{m})$  in vitro.

*Culture characteristics* — (in the dark, 25 °C): Colonies slow growing, reaching 5 mm diam after 7 d. On oatmeal agar erumpent, with sparse to moderate aerial mycelium, and smooth, lobate margins; surface scarlet with patches of saffron. On malt extract agar and potato-dextrose agar saffron, with patches of scarlet.

*Colour illustrations.* Leaves of a *Freylinia lanceolata* tree in Kirstenbosch Botanical Garden with scab disease symptoms; honeybell flowers; sporodochia on host; conidiogenous cells giving rise to conidia; conidia. Scale bars = 10  $\mu\text{m}$ .

*Typus.* SOUTH AFRICA, Western Cape Province, Cape Town, Kirstenbosch Botanical Garden, on leaves of *Freylinia lanceolata*, 8 May 2010, P.W. Crous, CBS-H 20485 holotype, cultures ex-type CPC 18336, 18335 = CBS 128204, ITS sequence of CPC 18335, GenBank HQ599577, MycoBank MB517530.

*Notes* — The genus *Freylinia* (*Scrophulariaceae*) is endemic to Africa, and has nine species that occur in South Africa. *Freylinia lanceolata* (common names: honeybells, honeybell bush, 'heuningklokkiesbos' in Afrikaans) is a small tree or shrub with golden-yellow, honey-scented, cylindrical flowers that occur in terminal heads on long, arching, drooping branches<sup>1</sup>. The ITS sequence of this species identifies its closest sister species to be *Elsinoë australis* (GenBank FJ010289; identity = 593/655 (91 %), gaps = 39/655 (5 %)).

Scab leaf disease, caused by *Sphaceloma freyliniae*, represents the first disease recorded on this host in South Africa<sup>2</sup>.

*References.* <sup>1</sup>Coates-Palgrave K. 1988. Trees of southern Africa, edn 2. Struik, Cape Town, South Africa. <sup>2</sup>Crous PW, Phillips AJL, Baxter AP. 2000. Phytopathogenic fungi from South Africa. University of Stellenbosch Printers, Department of Plant Pathology Press, Stellenbosch, South Africa.