# *Sphaceloma banksiicola* Pascoe & Crous, **sp. nov.**

***MycoBank*:** MB504457.

***Etymology*:** Named after its host genus, *Banksia.*

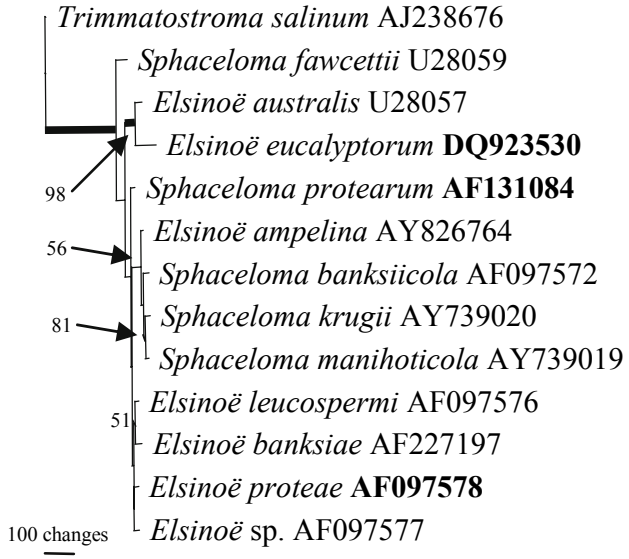
***Latin diagnosis*:** *Sphacelomatis protearum* similis, sed conidiis (4–)8–9(–10) × (2.5–)3–4 µm.

***Description*:** *Lesions* foliicolous and caulicolous, amphigenous, irregular, dark brown with distinct margins, up to 8 mm diam. *Mycelium* internal, consisting of hyaline to pale brown, smooth, 3–4 µm wide hyphae. *Conidiomata* sporodochial or acervular on leaves and stems, medium brown, wall composed of medium brown *textura angularis*, up to 400 µm diam. *Conidiophores* subcylindrical to doliiform, hyaline to pale brown, smooth, 0–1-septate, unbranched, 8–20 × 3–5 µm. *Conidiogenous cells* enteroblastic, polyphialidic, hyaline to pale brown, smooth-walled, subcylindrical to doliiform, 8–15 × 3–5 µm; collarettes and loci indistinct. *Conidia* hyaline, aseptate, ellipsoidal, apex obtuse, base subtruncate to bluntly rounded, (4–)8–9(–10) × (2.5–)3–4 µm *in vitro*.

***Cultural characteristics*:** Colonies reaching 15 mm diam after 1 month on 2 % malt extract agar (MEA)[1] at 25 °C; colonies erumpent, irregular, folded, with sparse aerial mycelium; margins uneven; colonies blood-red, with a diffuse red pigment close to the colony.

***Typus*: Australia**, Victoria, Longford, on leaves and stems of *Banksia prionotes*, 5 August 1996, collected by D. Tricks & A. Ziehrl, CBS H-19926, **holotypus**, culture ex-type CPC 1508 = CBS 113734 = VPRI 21100, GenBank AF097572.

***Notes*:** Only one other species of *Elsinoë* (anamorph: *Sphaceloma*) is known from *Banksia*, namely *E. banksiae* Pascoe & Crous[2]. The two species are easily distinguished based on their symptomatology, morphology and cultural characteristics. In contrast to *E. banksiae*, *S. banksiicola* is more commonly associated with stem lesions than leaf spots. On MEA cultures of *E. banksiae* are greenish grey, while those of *S. banksiicola* are red. Furthermore, colonies of *E. banksiae* have an optimal growth at 15 °C, while those of *S. banksiicola* grow best at 20–25 °C, and also are able to grow at 30 °C, thus being more tolerant of higher temperatures than *E. banksiae*. Phylogenetically *S. banksiicola* is also distinct from other *Elsinoë* species presently known from *Proteaceae*[2].




One of 11 equally most parsimonious trees (TL = 508; CI = 0.785; RI = 0.564; RC = 0.443) obtained from a heuristic search with 100 random taxon additions of an ITS sequence alignment using PAUP v. 4.0b10. The scale bar shows 100 changes, and bootstrap support values from 1000 replicates are shown at the nodes. Thickened lines indicate the strict consensus branches and ex-type sequences are printed in bold face. The tree was rooted to *Trimmatostroma salinum* Zalar, de Hoog & Gunde-Cim. (GenBank AJ238676). The alignment and tree is available in MycoBank (Accession MB504457).

***Colour illustrations*:** *Banksia prionotes* tree (K. van Herk); fungal colony on malt extract agar; conidia and conidiogenous cells (P.W. Crous). Scale bar = 10 µm.

***References*:** [1]Gams W, Verkley GJM, Crous PW (2007). *CBS course of mycology*. 5th ed. Centraalbureau voor Schimmelcultures, Utrecht, Netherlands. [2]Swart L, Crous PW, Kang J-C, Mchau GRA, Pascoe IA, Palm ME (2001). Differentiation of species of *Elsinoë* associated with scab disease of *Proteaceae* based on morphology, symptomatology, and ITS sequence phylogeny. *Mycologia* **93**: 365–379.

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Published by: Centraalbureau voor Schimmelcultures, P.O. Box 85167, 3508 AD Utrecht, Netherlands. ISBN-13: 978-90-70351-63-2.

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