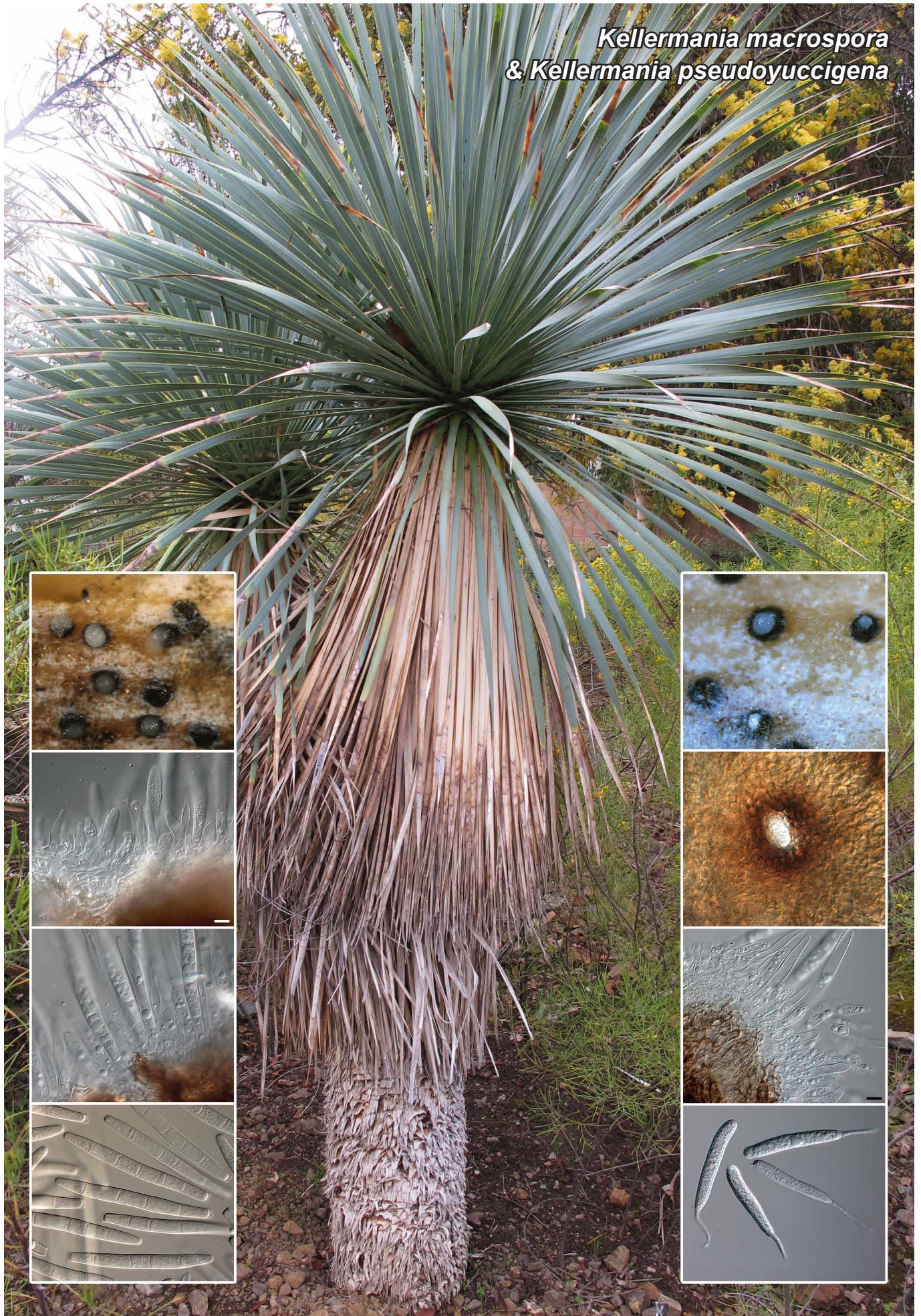


Kellermania macrospora
& *Kellermania pseudoyuccigena*



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***Kellermania macrospora* (Durieu & Mont.) Minnis & A.H. Kenn., *Persoonia* 29: 19. 2012**

Basionym. *Septoria macrospora* Durieu & Mont., *Exploration scientifique de l'Algérie* 1: 589. 1849.

≡ *Hendersonia montagnei* Cooke, *Nuovo Giorn. Bot. Ital.* 10: 19. 1878.

Note: This nom. nov. was established since the epithet '*macrospora*' was occupied by *H. macrospora* Berk. & Broome 1850.

≡ *Hendersonia piptarthra* Sacc., *Michelia* 2: 111. 1880. Note: This nom. nov. was established since the epithet '*macrospora*' is occupied by *H. macrospora* Berk. & Broome 1850. It is a nom. illeg. via superfluous, ICBN Art. 52, since *H. montagnei* was already published as a replacement name.

≡ *Stagonospora macrospora* (Durieu & Mont.) Sacc., *Syll. Fung.* 3: 450. 1883.

≡ *Piptarthron macrosporum* (Durieu & Mont.) Höhn., *Hedwigia* 60: 203. 1918.

Foliicolous. *Conidiomata* pycnidial, black, solitary, immersed, globose, unilocular, up to 600 µm diam; wall of 8–10 cells of brown *textura angularis*; ostiole central, non-papillate, up to 20 µm diam, exuding a hyaline conidial cirrhus. *Conidiophores* lining the inner cavity, reduced to conidiogenous cells, hyaline, smooth, subcylindrical to ampulliform, 10–25 × 5–8 µm, proliferating percurrently at apex, invested in mucus. *Conidia* hyaline, smooth, guttulate, cylindrical to obclavate, (3–)4(–5)-septate, (67–)85–97(–105) × (8–)9–10(–12) µm; frequently encased in a non-persistent 2 µm thick mucoid sheath; apex acutely rounded; conidial base truncate, with a minute, flaring marginal frill, 2–3 µm long.

Culture characteristics — Colonies reaching 50 mm diam after 2 wk, with moderate aerial mycelium and feathery margins. On PDA surface pale mouse grey, reverse dark mouse grey; on OA surface fluffy, white to dirty white.

Typus. ALGERIA, on leaves of *Agave* sp., holotype PC 85781. – USA, California, Walnut Creek, Ruth Bancroft Garden, 1552 Bancroft Road, on leaves of *Yucca rostrata* (*Asparagaceae*), 20 Mar. 2012, P.W. Crous (epitype designated here CBS H-21414, culture ex-epitype CPC 20391, 20390 = CBS 136549, ITS sequence GenBank KF777165, LSU sequence GenBank KF777218, MycoBank MBT176315).

Notes — The genus *Kellermania* (= *Alpakesa*, *Piptarthron*, *Planistroma*, *Planistromella*, ?*Septoplaca*) belongs to the *Planistromellaceae*, which is a separate family in the *Botryosphaeriales* (Minnis et al. 2012, Slippers et al. 2013). *Kellermania macrospora* (holotype PC 85781; conidia 3–5-septate, (60–)65–70(–78) × (9–)10–11 µm) closely matched that morphology of the epitype, and the strain identified by Minnis et al. (2012) as *K. macrospora* (CBS 131716; conidia 54.5–93 × 6.5–11 µm, 3–5(–7)-septate, occurring on *Agave* sp.).

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are *Kellermania yuccigena* (GenBank JX444883; Identities = 728/729 (99 %), Gaps = 1/729 (0 %)), *K. yuccifoliorum* (GenBank JX444882; Identities = 727/728 (99 %), no gaps) and *K. uniseptata* (GenBank JX444881; Identities = 726/728 (99 %), no gaps). Closest hits using the ITS sequence had highest similarity to *K. macrospora* (GenBank JX444858; Identities = 403/403 (100 %), no gaps), *K. unilocularis* (GenBank JX444865; Identities = 355/370 (96 %), no gaps) and *K. yuccifoliorum* (GenBank JX444867; Identities = 342/358 (96 %), no gaps).

***Kellermania pseudoyuccigena* Crous, sp. nov.**

Etymology. Named after its morphological similarity to *Kellermania yuccigena*.

Foliicolous. *Conidiomata* pycnidial, black, solitary, immersed, globose, unilocular, up to 300 µm diam; wall of 8–10 cells of brown *textura angularis*; ostiole central, non-papillate, up to 20 µm diam, exuding a hyaline conidial cirrhus. *Conidiophores* lining the inner cavity, reduced to conidiogenous cells, hyaline, smooth, subcylindrical to ampulliform, 5–12 × 3–6 µm, proliferating percurrently at apex, invested in mucus. *Conidia* hyaline, smooth, guttulate, cylindrical, 1-septate (submedian), (40–)50–60 × (6–)8–9 µm; apex giving rise to a simple setulate, unbranched appendage, 18–32 µm long; conidial base truncate, with a minute marginal frill, 1 µm long.

Culture characteristics — Colonies reaching 45 mm diam after 2 wk, with moderate aerial mycelium and feathery, lobate margins. On PDA surface dirty white, reverse greyish sepia; on OA surface dirty white.

Typus. USA, California, Walnut Creek, Ruth Bancroft Garden, 1552 Bancroft Road, on leaves of *Yucca rostrata* (*Asparagaceae*), 20 Mar. 2012, P.W. Crous (holotype CBS H-21415, culture ex-type CPC 20418, 20388, 20386 = CBS 136446, ITS sequence GenBank KF777166–KF777168, LSU sequence of CPC 20388, 20418 GenBank KF777219–KF777220, MycoBank MB805813).

Colour illustrations. *Yucca rostrata* in the Ruth Bancroft Garden, California. Left column: conidiomata, conidiogenous cells and conidia of *K. macrospora*. Right column: conidiomata, ostiolar area, conidiogenous cells and conidia of *K. pseudoyuccigena*. Scale bars = 10 µm.

Notes — *Kellermania pseudoyuccigena* occurs on the same leaves in association with *K. pentaseptata*. Morphologically *K. pseudoyuccigena* (conidia (40–)50–60 × (6–)8–9 µm) closely resembles *K. yuccigena*, but can be distinguished in the conidia of the latter species are generally wider (50–61 × 9–10 µm) when studied in culture under standardised conditions.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are *Kellermania yuccigena* (GenBank JX444883; Identities = 874/875 (99 %), Gaps = 1/875 (0 %)), *K. yuccifoliorum* (GenBank JX444882; Identities = 873/874 (99 %), no gaps) and *K. uniseptata* (GenBank JX444881; Identities = 872/874 (99 %), no gaps). Closest hits using the ITS sequence had highest similarity to *K. yuccigena* (GenBank JX444868; Identities = 460/461 (99 %), no gaps), *K. uniseptata* (GenBank JX444866; Identities = 453/461 (98 %), Gaps = 2/461 (0 %)) and *K. yuccifoliorum* (GenBank JX444867; Identities = 452/461 (98 %), Gaps = 3/461 (0 %)).