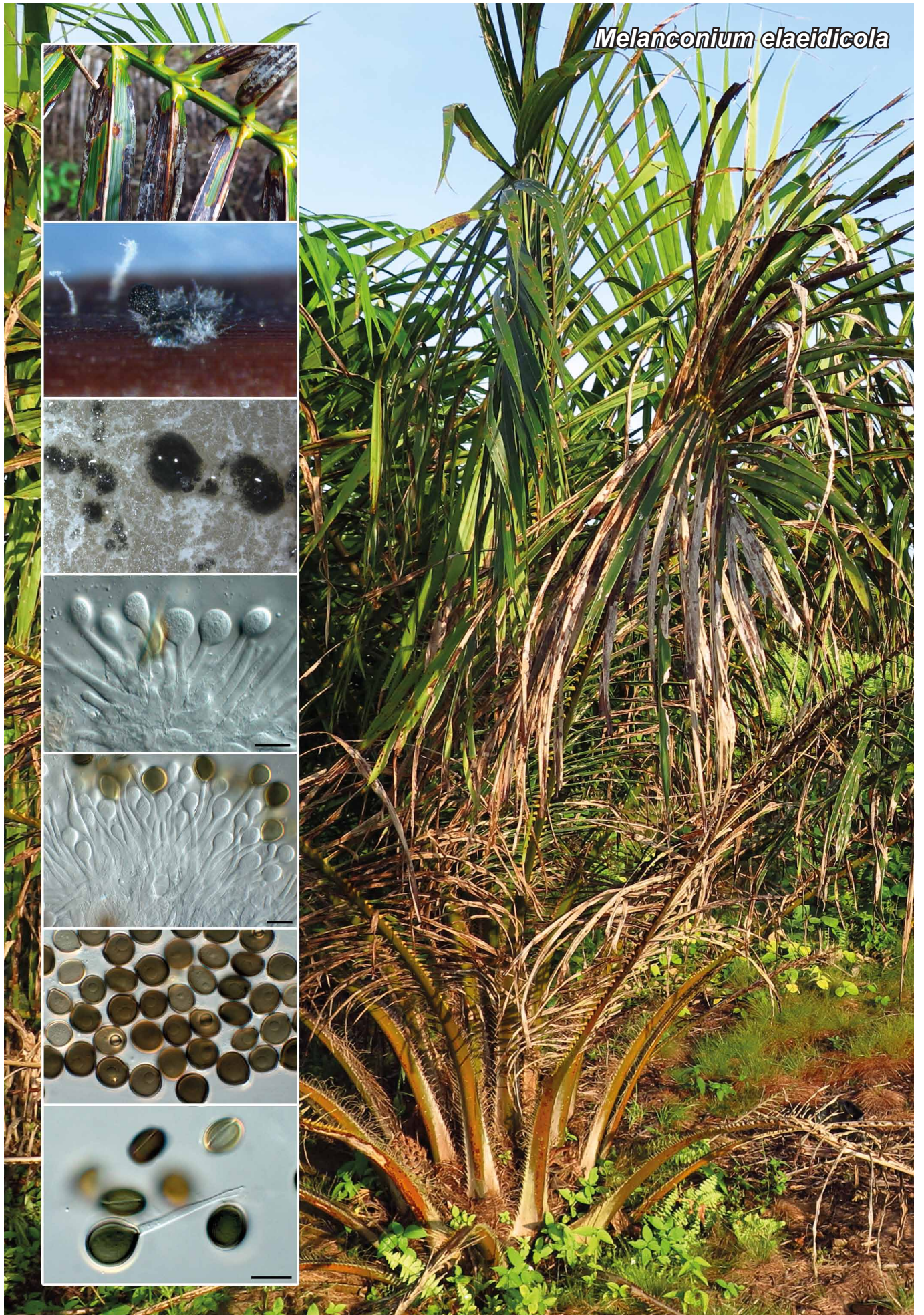


Melanconium elaeidicola



Fungal Planet 346 – 10 June 2015

***Melanconium elaeidicola* Crous & M.J. Wingf., sp. nov.**

Etymology. Name reflects the host *Elaeius*, from which this species was isolated.

Classification — *Melanconidaceae*, *Diaporthales*, *Sordariomycetes*.

Phytopathogenic, associated with irregular brown leaf spots that can be up to 2 cm diam. *Conidiomata* up to 200 µm diam, separate, immersed, black, becoming erumpent and acervular once open (opening via irregular rupture on PNA, but pycnidial on OA), exuding a black conidial mass, also sporulating on aerial hyphae on OA; wall of 3–6 layers of brown *textura angularis*, becoming hyaline towards inner region. *Conidiophores* hyaline, smooth, filiform, formed from inner layer of conidiomatal cavity, branched at the base, 20–60 × 4–6 µm. *Conidiogenous cells* terminal, integrated, hyaline, smooth, discrete, proliferating percurrently at apex, at times with flared collarette, 20–40 × 4–6 µm. *Conidia* aseptate, brown, smooth, guttulate, globose to ellipsoid, thick-walled, base truncate, 2 µm diam; conidia frequently with longitudinal germ slit and/or with longitudinal striations, (12–)13–14(–15) × (9–)11–12(–13) µm.

Culture characteristics — Colonies spreading, covering dish after 1 mo at 25 °C, with sparse aerial mycelium. On MEA iron grey due to profuse sporulation. On OA cinnamon. On PDA surface vinaceous buff, reverse rosy buff.

Typus. INDONESIA, Northern Sumatra, Tebing Tinggi District, Negeri Lama, on leaves of *Elaeis guineensis* (*Arecaceae*), 10 Aug. 2014, M.J. Wingfield (holotype CBS H-22246, culture ex-type CPC 25094 = CBS 139916; ITS sequence GenBank KR476745, LSU sequence GenBank KR476778, ACT sequence GenBank KR476788, TUB sequence GenBank KR476795, MycoBank MB812459); CPC 25095 (ITS sequence GenBank KR476746, LSU sequence GenBank KR476779, ACT sequence GenBank KR476789, TUB sequence GenBank KR476796).

Notes — The genus *Melanconium* (based on *M. atrum*) is heterogeneous, with several species linked to *Melanconis* and *Melanconiella*, and thus preference was given to using the names of the sexual morphs (Voglmayr et al. 2012). However, the species occurring on *Elaeis guineensis* in Indonesia is far removed from *Melanconiella* (based on *M. spodiarea*), and *Melanconis* (based on *M. stilbostroma*) (Voglmayr et al. 2012), and clearly represents a distinct genus. Because the phylogenetic position of *Melanconium atrum* remains unknown, and the fact that *Melanconium* has several generic synonyms (Sutton 1980), we decided to describe this taxon in *Melanconium* in the interim, awaiting future type studies and additional collections.

The common species causing anthracnose of oil palm (*Elaeis guineensis*) is '*Melanconium*' *elaedis* (Boari 2008). This taxon was originally described from the Congo on oil palm, with conidia subspherical to pyriform, 24–36 × 13–18 µm (Beeli 1923). Deighton (in Cejp & Deighton 1969) regarded it as a synonym of *Megalodochium palmicola* described from *Raphia hookeri* and *Cocos nucifera* in Sierra Leone, having conidia which are subspherical, ellipsoid, oblong to broadly obclavate or pyriform, 18–40 × 11–20 × 8–16 µm, with a longitudinal germ slit. Cejp & Deighton (1969) introduced the combination *Megalodochium elaeidis* for this pathogen. *Melanconium elaeidicola* is distinct from *Megalodochium* by having acervular to pycnidial conidiomata (not sporodochia), hyaline conidiophores that are only branched at the base, and smooth, globose to ellipsoid conidia.

Colour illustrations. Symptomatic *Elaeis guineensis* in Indonesia; close-up of leaf symptoms; sporulation on PNA and OA; conidiophores and conidia. Scale bars = 10 µm.

Pedro W. Crous & Johannes Z. Groenewald, CBS-KNAW Fungal Biodiversity Centre, P.O. Box 85167, 3508 AD Utrecht, The Netherlands; e-mail: p.crous@cbs.knaw.nl & e.groenewald@cbs.knaw.nl
Michael J. Wingfield, Forestry and Agricultural Biotechnology Institute (FABI), University of Pretoria, Pretoria 0002, South Africa; e-mail: mike.wingfield@up.ac.za
Dedek Haryadi, R & D Centre, Asian Agri Sumatra, Bahilang Estate, P.O. Box 35, Tebing Tinggi, Deli 20600, North Sumatra, Indonesia; e-mail: Dedek_Haryadi@aprilasia.com