



Fungal Planet 713 – 20 December 2017

Plectosphaerella niemeijerum L. Lombard, *sp. nov.*

Etymology. Named for Flora and Rosalie Niemeijer, who collected this sample. This species was discovered during a Citizen Science project in the Netherlands, 'Wereldfaam, een schimmel met je eigen naam', describing novel fungal species isolated from Dutch soils.

Classification — *Plectosphaerellaceae*, *Glomerellales*, *Sordariomycetes*.

Conidiophores solitary, unbranched, hyaline, smooth, thin-walled. **Conidiogenous cells** phialidic, determinate or forming laterally, hyaline, smooth, with a single basal septum, widest at the base, straight to sinuous, gradually tapering to the apex, $10\text{--}48 \times 2\text{--}3 \mu\text{m}$, with periclinal wall thickening and cylindrical collarete. **Conidia** aggregate in slimy heads, fusiform to ellipsoid, tapering to rounded apex and base, hyaline, smooth, 0–1-septate, with a minute apiculus at either end, $(3\text{--})4\text{--}6 \times 2\text{--}3 \mu\text{m}$ (av. $5 \times 2 \mu\text{m}$).

Culture characteristics — Colonies on PDA white, mycelium appressed, slimy, with sparse aerial mycelium. Aerial mycelium white, fluffy.

Typus. THE NETHERLANDS, Nieuwegein, from soil, Feb. 2017, F. & R. Niemeijer (holotype CBS H-23234, culture ex-type CBS 143233 = JW5012; ITS, LSU, *tef1* and *tub2* sequences GenBank MG386080, MG386133, MG386161 and MG386172, MycoBank MB823351).

Notes — *Plectosphaerella niemeijerum* is phylogenetically closely related to *P. plurivora* (on asparagus, Italy; conidia $4.5\text{--}10.5 \times 2\text{--}5 \mu\text{m}$; Carlucci et al. 2012), but morphologically distinct in having smaller conidia, $(3\text{--})4\text{--}6 \times 2\text{--}3 \mu\text{m}$ (av. $5 \times 2 \mu\text{m}$).

Based on megablast searches using the ITS sequence of the ex-type culture, the best matches were to *Plectosphaerella* sp. (GenBank KX359601; Identities = 583/584 (99 %), no gaps) and *P. cucumerina* (GenBank KP068972; Identities = 554/555 (99 %), no gaps). Based on megablast searches using the *tef1* sequence of the ex-type culture, the best matches were to *P. plurivora* (GenBank KY421323; Identities 252/262 (96 %), 2 gaps (0 %)) and *P. pauciseptata* (GenBank KY421322; Identities 250/262 (95 %), 2 gaps (0 %)). Based on megablast searches using the *tub2* sequence of the ex-type culture, the best matches were to *P. plurivora* (GenBank KY421303; Identities 316/325 (97 %), 4 gaps (1 %)) and *P. oligotrophica* (GenBank JX508814; Identities 341/379 (90 %), 9 gaps (2 %)).

Colour illustrations. Garden from which the soil sample was collected; conidiophores and conidia. Scale bars = 10 μm .