Fungal Planet 289 – 24 November 2014

Gonatophragmium triuniae Crous & Summerell, sp. nov.

_Etymology._ Name reflects the host genus _Triunia_, from which the species was isolated.

_Mycelium_ consisting of hyaline, septate, branched, 2–3 µm diam hyphae. _Conidiophores_ solitary, macronematous, erect, arising from superficial hyphae, straight to flexuous, T-cell at base slightly swollen (up to 7 µm diam) or not, stipe 200–280 µm long, 4–5 µm diam at the base, 4–7-septate, brown, smooth, thin-walled, branched in upper part. Primary branches pale brown, verruculose, subcylindrical, asceptate, 25–35 x 3–4 µm, giving rise to 1–2 secondary branches, pale brown, subcylindrical, asceptate, 15–20 x 3–4 µm. Secondary branches giving rise to a conidiogenous region consisting of 3–4 subcylindrical cells, pale brown, finely verruculose to smooth, each cell with an upper fertile region consisting of aggregated denticulate loci, 0.5 µm long, 1 µm diam, darkened and thickened; at times cells also have a fertile lateral branch, 13–20 x 3–3.5 µm. _Conidia_ solitary, clavate, pale brown, guttulate, roughened, apex obtuse, lower part attenuating towards truncate base, 1 µm diam; conidia 1-septate, slightly constricted at septum, straight to slightly curved, apical cell 5–6 µm long, basal cell 7–8 µm long, conidia (10–)12–14 (–15) x (3.5–)4 (–4.5) µm (apical cell rarely developing a second septum); hila 0.5–1 µm diam, somewhat darkened and thickened.

_Culture characteristics._ — Colonies reaching 15 mm diam after 2 wk at 25 °C in the dark, with moderate aerial mycelium and smooth, even margins. On MEA surface ochreous, reverse umber. On PDA surface luteous to buff, with diffuse, luteous pigment, but umber in reverse. On OA surface dirty white with diffuse buff pigment.


Notes — Species of _Gonatophragmium_ are commonly associated with leaf spots on a wide range of hosts (Ellis 1971, 1976, Braun & Hill 2008). Of the approximately 15 species presently known to occur in the genus, _G. triuniae_ is easily distinguished based on its small, 1-septate conidia. It is also the only species thus far reported from _Triunia._

**ITS.** Based on a megablast search of NCBI’s GenBank nucleotide database, the closest hits using the ITS sequence are _Arthrothelium spectabile_ (GenBank AF138814; Identities = 446/469 (95 %), Gaps = 9/469 (1 %)), _Phaeodactyllum stadleri_ (GenBank HF678526; Identities = 317/369 (86 %), Gaps = 8/369 (2 %)) and _Radulidium subulatum_ (GenBank EU041790; Identities = 436/544 (80 %), Gaps = 36/544 (6 %)).

**LSU.** Based on a megablast search of NCBI’s GenBank nucleotide database, the closest hits using the LSU sequence are _Acrospermum adeanum_ (GenBank EU940104; Identities = 758/800 (95 %), no gaps), _Pseudovirgaria grisea_ (GenBank JF957610; Identities = 780/827 (94 %), Gaps = 2/827 (0 %)) and _Pseudovirgaria hyperparasitica_ (GenBank EU041822; Identities = 780/827 (94 %), Gaps = 2/827 (0 %)).