
Fusicolla melogrammae

Fungal Planet 496 – 21 December 2016

Fusicolla melogrammae Lechat & Aplin, *sp. nov.*

Etymology. The epithet refers to the host fungus *Melogramma*.

Classification — *Nectriaceae*, *Hypocreales*, *Sordariomycetes*.

Diagnosis — Differs from *Fusicolla matuoi* in having larger ascomata turning orange in lactic acid, larger ascospores, asexual morph with smaller macroconidia and its occurrence on *Melogramma campylosporum*.

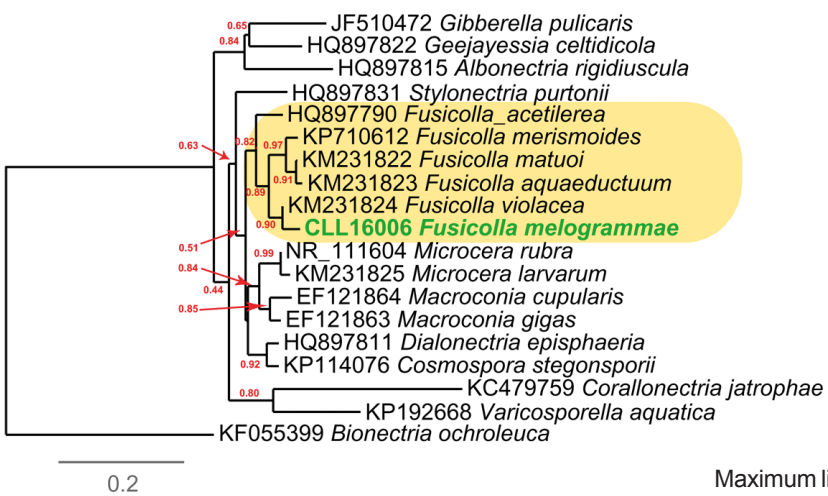
Ascomata perithecial, superficial, solitary or in groups of 2–4, crowded on host surface or sometimes on bark around stromata, with base remaining slightly immersed in substratum, nonstromatic, obpyriform, (230–)250–290(–300) µm high × (190–)220–250(–260) µm diam (av. = 280 × 245 µm, n = 10), uniloculate, smooth, pale yellow to pale orange, laterally collapsing when dry, not changing colour in 3 % KOH, but turning orange in lactic acid, with a broadly conical, rounded apex 40–60 µm high, 60–80 µm diam at base, composed of cylindrical, pale yellow cells narrowly clavate at tip. Perithecial surface cells forming a *textura angularis* in surface view with cells up to 20 µm in greatest dimension, covered by thick-walled (1.5 µm), hyphal elements arising from base of perithecium, pale yellow, aseptate, 5–6 µm diam, rounded at free end, developing to form a crown around ostiolar region, thick-walled (0.6–1.2 µm), cylindrical, pale yellow, aseptate, 3–4.5 µm diam, rounded at tip. *Ascomatal wall* 20–25 µm thick, composed of a single region of globose to ellipsoidal cells 4–10 × 2.5–4.5 µm with very pale orange wall 1–2 µm thick, becoming flattened and hyaline inwardly. *Asci* unitunicate, shortly stipitate (60–)70–80(–85) × (9–)10–12(–14) µm (av. = 76.5 × 11.5 µm, n = 20), cylindrical to narrowly clavate, with eight obliquely uniseriate ascospores, apically truncate when immature, becoming rounded when mature, with a faint apical ring-like thickening, interspersed with early deliquescing, slightly moniliform paraphyses 6–8 µm wide at base. *Ascospores* ellipsoidal, rounded at ends, 1-septate, (10–)12–14(–15) × 4.5–5(–5.5) µm (av. = 13 × 5 µm, n = 30), hyaline to pale golden brown when mature, slightly constricted at septum, spinulose. *Asexual morph* fusarium-like.

Culture characteristics — After 2 wk on 2 % PDA with 5 mg/L streptomycin: colony reaching 12–15 mm diam, slimy, aerial hyphae rare to absent, white to cream in centre; middle area orange with carmine, radiating strands; white at margin, producing a fast growing fusarium-like asexual morph. No microconidia produced; macroconidia hyaline, smooth, (0–)1–3-septate, long-fusiform, falcate, acute at both ends; 8–22 × 2–3.5 µm when 0–1-septate, (25–)30–38(–44) × (4–)4.5–5.5 µm when 3-septate.

Typus. UK, West Sussex, River Mole Woodland, near Gatwick Airport, on dead stromata of *Melogramma campylosporum* on bark of *Carpinus betulus*, 24 Jan. 2016, *N. Aplin* (CLL16006, holotype LIP, ex-type culture CBS 141092, ITS sequence GenBank KX897140, LSU sequence GenBank KX897141, MycoBank MB818573).

Additional material examined. France, Peyrau, Rimont (09), on *Melogramma campylosporum* on bark of *Corylus avellana*, 29 Nov. 2011, leg. J. Fournier JF11178 (LIP).

Notes — The placement of this species in the *Nectriaceae* is confirmed by phylogenetic comparison of its ITS sequence with those of 10 other nectriaceous species (included phylogeny) having a fusarium-like asexual morph. As *Fusicolla* features ascomata with hairs around the ostiolar region, an ascomatal wall less than 25 µm thick of a single region composed of thick-walled cells not changing colour in 3 % KOH, it appeared to closely resemble *Nectriopsis*. However, *Nectriopsis* belongs to the *Bionectriaceae*.



Maximum likelihood phylogeny of *Fusicolla* inferred from ITS sequences, rooted with *Bionectria ochroleuca*. Analysis performed online at www.phylogeny.fr (alignments edited with GBlocks v. 0.91b), run in PhyML v. 3.0aLRT using the GRT+I+Γ model. Branch supports assessed by the SH-aLRT statistical test. The novel species described here is highlighted in green text.

Colour illustrations. UK, West Sussex, River Mole Woodland, near Gatwick Airport, where the sample was collected; ascomata on host substratum, vertical section through lateral, ascomatal wall, asci and ascospores. Scale bars = 200, 10 and 10 µm.

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