Phialemonium limoniforme
**Phialemonium limoniforme** Giraldo & Deanna A. Sutton, *sp. nov.*

*Etymology:* Referring to conidial shape, resembling a lemon.

*Classification — Cephalothecaceae, Sordariales, Sordariomycetes.*

*Mycelium* consisting of septate, hyaline, smooth- and thin-walled hyphae, 1.5—2 µm diam. *Conidiophores* absent or poorly differentiated, consisting of single phialides, arising orthotropically from vegetative hyphae. *Phialides* lateral and terminal, sometimes with a sympodial proliferation, ampuliform or flask-shaped, 10—15 µm long, 2.5—3 µm wide at the swollen basal part, tapering toward the apex in a narrow long neck, with a distinct periclinal thickening at the conidiogenous locus and occasionally with an inconspicuous cylindrical collar. *Hyphae*, hyaline, thick- and smooth-walled.

*Conidia* unicellular, limoniform, 3—4 × 2—2.5 µm, with conspicuous connectives at both ends, hyaline, smooth- and thick-walled, arranged in long chains. *Adelophialides*, chlamydospores and sexual morph not observed.


*Notes — The genus Phialemonium (Cephalothecaceae, Sordariales) was established by Gams & McGinnis (1983) and was recently reviewed by Perdomo et al. (2013). Currently Phialemonium contains six species apart from *P. limoniforme*, which are commonly isolated from environmental sources, and with less frequency from human samples (Rivero et al. 2009, Perdomo et al. 2011, Guarro 2012). Although clearly phylogenetically distant from the other species of the genus, *P. limoniforme* (TreeBASE ID 16814) morphologically resembles *P. globosum, P. inflatum* and the asexual morph of *Cephalotheca sulfurea*, by the production of conidial chains with connectives, and phialides that are more or less inflated at the base (Perdomo et al. 2013). However, in contrast with the former species, *P. globosum* has globose to subglobe conidia, cylindrical phialides with a slightly swollen base and adelophialides; *P. inflatum* produces smooth or finely roughened conidia (4—5 × 2—3 µm), larger phialides (up to 19 µm long) and no growth at 35 °C; and finally, the asexual morph of *C. sulfurea* has ovoid conidia.

Maximum likelihood (ML) tree based on partial sequences of ITS and LSU regions from reference and type strains of *Phialemonium* species. The alignment included 905 bp and was performed with Clustal W and MUSCLE applications. Tamura-Nei with Gamma distribution was used as the best nucleotide substitution model in ML analysis. Both the alignment and tree were constructed under MEGA v. 5.05 (Tamura et al. 2011). *Lecythophora lignicola* and *L. luteoviridis* (*Coniochaetaeaceae, Coniochaetales*) were used as outgroup taxa. The new species is highlighted in bold face. Bootstrap support values above 70 % are shown at the nodes. 1Ex-type strain. Accession numbers of D1/D2 and ITS sequences retrieved from GenBank database are in parentheses.