
Megatomentella cristata
5 mm
200 µm
200 µm
200 µm
200 µm
20 µm
20 µm
20 µm
20 µm
20 µm
10 µm

Fungal Planet 641 – 20 December 2017

Megatomentella D.A.C. Almeida, Gusmão & A.N. Mill., *gen. nov.*

Etymology. Referring to the well-developed tomentum.

Classification — *Incertae sedis*, *Pleosporales*, *Dothideomycetes*.

Ascomata superficial, globose, tomentose, subiculum present, ostiolate. *Beak* ridge-like, laterally compressed, opening by an elongate, slit-like ostiole. *Pseudoparaphyses* trabeculate, with gelatinous coating. *Asci* clavate, long-stipitate, thin-walled, bitunicate, fissitunicate, apex rounded, octosporous. *Ascospores* biseriate, fusiform, curved, septate, hyaline, without sheath, guttulate.

Type species. *Megatomentella cristata* D.A.C. Almeida, Gusmão & A.N. Mill.

MycoBank MB822811.

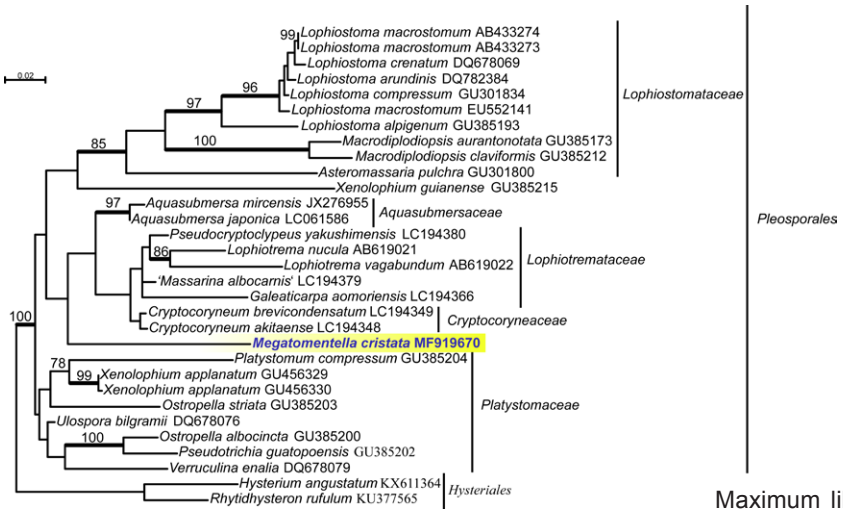
Megatomentella cristata D.A.C. Almeida, Gusmão & A.N. Mill., *sp. nov.*

Etymology. From Latin *cristatus*. Referring to the laterally compressed ascomal neck, resembling a crest.

Ascomata 340–480 × 300–480 µm, superficial, numerous, densely aggregated, globose, ostiolate, surface roughened, tomentose, sometimes forming subgroups with continuous tomentum giving an areolate aspect. *Beak* 145–220 µm long, 90–130 µm high, apical, laterally compressed, opening by an elongate, slit-like ostiole of same length; subiculum abundant, formed by brown, branched hyphae appressed to substrate. *Ascomatal wall* in longitudinal section 2-layered, 26–53 µm thick, inner layer pseudoparenchymatous, 15–28 µm thick, of *textura angularis* alternating with *textura prismatica*, composed of 8–10 layers of polygonal to elongate, pale brown, thick-walled, pseudoparenchymatic cells, outer layer heavily-melanised, 21–33 µm thick, not showing individual cell structure. *Pseudoparaphyses* 1–1.5 µm wide, trabeculate, with gelatinous coating. *Asci* 109–225 × 8–12 µm, spore-bearing part 48–73 µm, stipe 49–170 µm, clavate, long-stipitate, thin-walled, bitunicate, fissitunicate, apex rounded, octosporous. *Ascospores* 17–27 × 3.5–6 µm, biseriate, fusiform, straight or curved, 1-septate, upper cell swollen near the septum, hyaline, without sheath, guttulate, guttules spherical.

Typus. Brazil, Ceará, Ubajara, Ubajara National Park, on branches of unidentified plant, 4 May 2012, *D.A.C. Almeida* (holotype HUEFS 155135, ITS and LSU sequences GenBank MF919671 and MF919670, MycoBank MB822842).

Notes — *Megatomentella* is similar to *Ostropella* and *Xenolophium* in the morphological characteristics of the ascomata, which are superficial, globose with a slit-like ostiole, and the long-stipitate asci enclosing eight, fusiform ascospores. However, the ascomata of these two genera differ from *Megatomentella* by having papillae instead of a distinct laterally compressed beak and the ascospores are usually pigmented and constricted at the septa. *Lophiostoma* can also be compared to our material in the ascomata opening by a slit-like ostiole, but it is distinct in having immersed to erumpent ascomata lacking tomentum and by short-stipitate asci. Additionally, our specimen grouped in an independent clade within *Pleosporales*, but separate from the type species of these three genera: *L. macrostomum*, *O. albocincta* and *X. applanatum*. *Megatomentella* may represent a member of a distinct family in *Pleosporales*, but a multi-gene phylogeny is necessary to add support to this clade before a new family is warranted.



Maximum likelihood (ML) phylogenetic tree obtained using RAxML in CIPRES based on LSU nrDNA. Numbers above branches refer to bootstrap support values ≥ 70 % and thickened branches indicate significant Bayesian posterior probabilities ≥ 95 %. The new genus is highlighted in yellow. GenBank accession numbers for the LSU sequences are given after taxon names.

Colour illustrations. Brazil, Ubajara National Park, field track inside an enclave of Atlantic Forest located on a mountaintop where the species was collected; ascomata; longitudinal section through ascomal wall; ascus; ascus apex showing fissitunicate dehiscence; centrum with several asci and pseudoparaphyses; ascospores. Scale bars (as indicated).

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