

Neostrelitziana acaciigena
& *Castanediella acaciae*



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Neostrelitziana Crous & M.J. Wingf., *gen. nov.*

Etymology. Name reflects its similarity to the genus *Strelitziana*.

Classification — *Incertae sedis*, *Chaetothyriales*, *Eurotiomycetes*.

Mycelium, consisting of smooth, pale brown, septate, branched, hyphae. *Conidiophores* reduced to conidiogenous cells. *Conidiogenous cells* occurring as solitary loci on hyphae, subcylindrical,

pale brown, smooth, curved. *Conidia* solitary, subcylindrical to slightly clavate or with slight taper in basal third of collarete, pale brown, smooth, granular, straight to curved, septate; base with long, curved, to S-curved collarete, cylindrical, pale brown.

Type species. *Neostrelitziana acaciigena*.
MycoBank MB812428.

Neostrelitziana acaciigena Crous & M.J. Wingf., *sp. nov.*

Etymology. Name reflects the host genus *Acacia*, from which the species was isolated.

Mycelium, consisting of smooth, pale brown, septate, branched, 2–3 µm diam hyphae. *Conidiophores* reduced to conidiogenous cells. *Conidiogenous cells* solitary, subcylindrical, pale brown, smooth, curved, 5–10 × 2–3 µm. *Conidia* solitary, subcylindrical to slightly clavate or with slight taper in basal third of collarete, pale brown, smooth, granular, straight to curved, 1–8-septate, (17–)55–75(–80) × (3–)4 µm; base with long, curved, to S-curved collarete, cylindrical, pale brown, 5–20 × 2–3 µm.

Culture characteristics — See MycoBank.

Typus. MALAYSIA, Sabah, on leaf spots of *Acacia mangium* (*Leguminosae*), May 2014, M.J. Wingfield (holotype CBS H-22232, culture ex-type CPC 24873 = CBS 139903; ITS sequence GenBank KR476730, LSU sequence GenBank KR476765, MycoBank MB812429).

Notes — Although *Neostrelitziana* resembles *Strelitziana* (*Chaetothyriales*) in morphology (Crous et al. 2013b), they are phylogenetically distinct. Furthermore, the basal appendage, is S-curved and prominent in *Neostrelitziana*, while it is short and straight in *Strelitziana*.

Castanediella Hern.-Restr., Crous & M.J. Wingf., *gen. nov.*

Etymology. Named for Rafael Castañeda, a distinguished Cuban mycologist who described several *Ildriella* species.

Classification — *Incertae sedis*, *Xylariales*, *Sordariomycetes*.

Mycelium immersed and superficial, hyphae branched, septate, hyaline and brown, smooth-wall. *Conidiomata* if present sporodochium-like. *Conidiophores* branched, pale brown to brown

at the base and subhyaline at the apex. *Conidiogenous cells* lageniform to cylindrical, sympodial, small denticles or scars, terminal and lateral, subhyaline. *Conidia* falcate, cylindrical or fusiform, 0–1-septate, hyaline, smooth-walled. *Chlamydospores* not observed. *Sexual morph* unknown.

Type species. *Castanediella acaciae*.
MycoBank MB811878.

Castanediella acaciae Crous, Hern.-Restr. & M.J. Wingf., *sp. nov.*

Etymology. Name reflects the host genus *Acacia*, from which the species was isolated.

Mycelium hyaline to brown with mucoid coating, consisting of branched, septate, 2–5 µm diam hyphae. *Colonies* solitary, erumpent, starting as a penicillate tuft of conidiophores with central attachment point, expanding lateral and apical, becoming densely branched, but with central attachment almost stipitate, 25–200 µm diam, up to 100 µm high, central base from central hyphae 5 µm diam to tuft of central hyphae up to 20 µm diam; conidiomata appearing sporodochial from above, umbrella-like from side. *Conidiophores* subcylindrical, densely branched, multi-septate, medium brown, smooth, 40–80 × 2–3 µm. *Conidiogenous cells* solitary, terminal and intercalary, ampulliform, pale brown, smooth, apex truncate, polyblastic with minute scars at apex, 10–15 × 2–3 µm. *Conidia* solitary, hyaline, smooth, falcate with subobtuse ends, biguttulate, (8–) 10–11(–12) × 1.5(–2) µm.

Culture characteristics — See MycoBank.

Colour illustrations. *Acacia mangium* trees in Malaysia; *Neostrelitziana acaciigena* (left column): conidiogenous cells and conidia; *Castanediella acacia* (right column): sporodochia on SNA, conidiophores and conidia. Scale bars = 10 µm.

Typus. MALAYSIA, Sabah, on leaf spots of *Acacia mangium* (*Leguminosae*), May 2014, M.J. Wingfield (holotype CBS H-22225, culture ex-type CPC 24869 = CBS 139896; ITS sequence GenBank KR476728, LSU sequence GenBank KR476763, MycoBank MB812430); CPC 24870.

Notes — Morphologically, *Castanediella* resembles *Microdochium*. It differs by having brown, branched conidiophores. *Castanediella* is allied to the *Xylariales*, but still clusters distant from *Microdochiaceae* where *Microdochium phragmites* and *Ildriella lunata* the type species of *Microdochium* and *Ildriella* respectively, reside (Hernández-Restrepo et al. in prep.).

Castanediella cagnizarii (R.F. Castañeda & W.B. Kendr.)
Crous, Hern.-Restr. & M.J. Wingf., *comb. nov.* — MycoBank MB811879

Basionym. *Ildriella cagnizarii* R.F. Castañeda & W.B. Kendr., Univ. Waterloo Biol. Ser. 35: 63. 1991.

Castanediella ramosa (Matsush.) Crous, Hern.-Restr. & M.J. Wingf., *comb. nov.* — MycoBank MB812431

Basionym. *Ildriella ramosa* Matsush., Bull. Natl. Sci. Mus. 14: 466. 1971.

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