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# Phylogeny of *Discosia* and *Seimatosporium*, and introduction of *Adisciso* and *Immersidiscosia* genera nova

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*Discosia* (teleomorph unknown) and *Seimatosporium* (teleomorph *Discostroma*) are saprobic or plant pathogenic, coelomycetous genera of so-called 'pestalotioid fungi' within the *Amphisphaeriaceae* (*Xylariales*). They share several morphological features and their generic circumscriptions appear unclear. We investigated the phylogenies of both genera on the basis of SSU, LSU and ITS nrDNA and  $\beta$ -tubulin gene sequences. *Discosia* was not monophyletic and was separated into two distinct lineages. *Discosia eucalypti* deviated from *Discosia* clade and was transferred to a new genus, *Immersidiscosia*, characterised by deeply immersed, pycnidoid conidiomata that are intraepidermal to subepidermal in origin, with a conidiomatal beak having periphyses. Subdividing *Discosia* into 'sections' was not considered phylogenetically significant at least for the three sections investigated (sect. *Discosia*, *Laurina*, and *Strobilina*). We recognised *Seimatosporium* s.l. as a monophyletic genus. An undescribed species belonging to *Discosia* with its associated teleomorph was collected on living leaves of *Symplocos prunifolia* from Yakushima Island, Japan. We have therefore established a new teleomorphic genus, *Adisciso*, for this new species, *A. yakushimense*. *Discostroma tricellulare* (anamorph: *Seimatosporium azaleae*), previously described from *Rhododendron* species, was transferred to *Adisciso* based on morphological and phylogenetic grounds. *Adisciso* is characterised by relatively small-sized ascomata without stromatic tissue, obclavate to broadly cylindrical asci with biseriate ascospores that have 2 transverse septa, and its *Discosia* anamorph. Based on these features, it can easily be distinguished from *Discostroma*, a similar genus within the *Amphisphaeriaceae*.

**Keywords:** AMPHISPHAERIACEAE; ANAMORPH; COELOMYCETES; DISCOSTROMA; PESTALOTIOID FUNGI; XYLARIALES

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