

Outlineoffungi.org - Note 1436 *Neotainosphaeria*

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Neotainosphaeria W.P. Wu & Y.Z. Diao

Wu & Diao (2022) introduced the monotypic genus *Neotainosphaeria* under *Chaetosphaeriaceae* (*Chaetosphaeriales*, *Sordariomycetidae*, *Sordariomycetes*, *Pezizomycotina*, *Ascomycota*) to accommodate *Neotainosphaeria microsperma* W.P. Wu & Y.Z. Diao based on morphological characters and phylogenetic analyses using LSU and ITS sequence data. The type species was found on dead branches of unidentified plant in China. In *Neotainosphaeria*, colonies are effuse, hairy, and dark brown. The mycelium is partly superficial and partly immersed, constructed of pale brown to brown, branched, and septate hyphae. In the asexual morph, conidiophores are macronematous, simple, erect, dark brown to reddish-brown, with four to six-septa. Conidiogenous cells are integrated, terminal, monophialidic, cylindrical, thick- and rough-walled. Conidia are holoblastic, acrogenous, solitary, globose to subglobose, and hyaline with two–three slender appendages. The sexual morph of *Neotainosphaeria* has not been observed. Morphologically, *Neotainosphaeria* shows similarities to certain species of *Codinaeella* and *Tainosphaeria* in terms of their globose to ellipsoidal conidia. However, it differs in several key aspects. It produces rough-walled, monophialidic conidiogenous cells with inconspicuous collarettes. Its conidia are globose to subglobose, rough, and thick-walled, typically bearing two to three setulae. While it shares some similarities with *Calceispora* and *Bahusutrabeeja* sensu lato, it can be distinguished by its monophialidic conidiogenous cells with narrower sporulation loci and inconspicuous collars. Additionally, its conidia are rough and thick-walled, with setulae along the sides (Wu & Diao, 2022). *Brachydictyochaeta* formed a sister clade based on a combined sequence of ITS and LSU sequence data. Morphologically, *Neotainosphaeria microsperma* shows similarities to *Bahusutrabeeja dwaya*, *Brachydictyochaeta globosa*, and *Brachydictyochaeta bunyensis*. However, it can be distinguished by the presence of a smooth-walled conidiogenous cell with a wide sporulation locus and conidia bearing multiple appendages, which are observed in *Brachydictyochaeta dwaya* and *Brachydictyochaeta globosa*. Additionally, it can be distinguished by its smaller conidia (7-10 µm in diameter) in *Brachydictyochaeta bunyensis* (Wu & Diao, 2022).

Reference

Wu W, Diao Y. 2022 – Anamorphic chaetosphaeriaceous fungi from China. *Fungal Diversity* 116(1), 1–546.

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