Outlineoffungi.org - Note 613 *Intubia*

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Intubia W.J. Nel, Z.W. de Beer & T.A. Duong

Intubia was isolated from *Termitomyces* fungus combs devoid of termites (Nel et al. 2021). This taxon, which has been established based on morphology, combined with phylogenetic and phylogenomic analyses, belongs in *Ophiostomataceae*. It currently accommodates two taxa, with *Intubia macrotermitinarum* as the type (Nel et al. 2021). *Intubia* species are characterized by dark brown to black ascomata with uniformly dark necks which become narrower towards the apex and are devoid of ostiolar hyphae. Hyaline, aseptate and cylindrical ascospores are produced at the apex in slimy droplets. Their asexual morphs are hyalorhinocladiella- or sporothrix-like. Conidiophores are solitary, micronematous while conidiogenous cells either possess or lack denticles. Conidia are bacilliform or round to obovoid. Secondary conidia are often present (Nel et al. 2021).

The initial placement of *Intubia* strains in *Ophiostomataceae* was confirmed by single-locus phylogenetic analyses of LSU, ITS and β-tub regions. While the phylogenetic tree based on LSU sequence data showed a single clade for the strains, the phylogenies based on ITS and β-tub loci revealed two well-supported subclades for the isolates. Even though the single-locus phylogenies using the aforementioned three regions segregated the isolates from other taxa in the family, the distinct generic placement of these isolates was eventually confirmed by phylogenomic analyses. The novel genus *Intubia* was therefore established with two species (Nel et al. 2021).

Intubia, along with *Chrysosphaeria*, is distinct from other taxa of *Ophiostomataceae* in terms of its unique habitat, namely, the *Termitomyces* combs. Nel et al. (2021) reported that *Intubia* species appeared on the fungus combs only after that the latter had been abandoned by termites. Furthermore, with the exception of *Termitomyces* mycelium medium, media supplemented with *Termitomyces* combs as well as the extracts of *Termitomyces* sp. promoted the growth of the taxa as compared to other growth medium such as malt extract agar. Any association between *Intubia* and the *Termitomyces* combs or even with the termites, as well as the source of the inoculum of *Intubia* taxa are yet to be investigated (Nel et al. 2021).

Reference

Nel WJ, de Beer ZW, Wingfield MJ, Poulsen M, Aanen DK, Wingfield BD, Duong TA. 2021 – Phylogenetic and phylogenomic analyses reveal two new genera and three new species of ophiostomatalean fungi from termite fungus combs. Mycologia 113: 1199–1217. https://doi.org/10.1080/00275514.2021.1950455

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