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Evaluation of antimicrobial activity of endophytic fungi from *Camptotheca acuminata* (Nyssaceae)

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ABSTRACT. Agricultural research of plant-derived endophytic fungi has grown in recent decades. We isolated 26 endophytic fungi from the leaves, stems and fruits of "the tree of life", *Camptotheca acuminata*, and tested them for antimicrobial activities based on growth inhibition measurements in a modified agar diffusion method. Fermentation broths from most of the isolates exhibited antifungal activity and 50% exhibited antibacterial activity; some of them also exhibited strong broad-spectrum antimicrobial activity. The strongest antimicrobial activity was exhibited by strains XSY10 and XSY15 against *Rhizoctonia solani* and *Fusarium oxysporum* f. sp. *vasinfectum*, with 75% and 67% inhibition, respectively. Strain XSJ01 gave strong activity against pathogenic bacteria, with inhibition zones more than 20 mm in diameter. The isolates were identified by molecular methods as belonging to nine taxa: *Nigrospora*, *Diaporthe*, *Alternaria*, *Colletotrichum*, *Pestalotiopsis*, *Sordariomycete*, *Guignardiai*, *Penicillium*, and *Zythia*. Based on

these results, we conclude that the endophytic fungi of *C. acuminata* are promising sources of novel bioactive compounds.

Key words: *Camptotheca acuminata* Decne.; Endophytic fungi; Antimicrobial activity

