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Diversity and antibacterial activity of *Phyllosticta* species

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ABSTRACT

***Phyllosticta* fungi are widely distributed and appear to have different lifestyles. Although some *Phyllosticta* species are known to cause plant diseases, others are useful due to their bioactive metabolites. In this study, we screened and isolated the *Phyllosticta* fungi from several plant specimens. In total, 67 *Phyllosticta* isolates were identified based on their distinct morphological characteristics. Of these, 18 isolates were pathogens and 49 isolates were endophytes. Besides, 61 isolates (91%) were identified as *P. capitalensis* indicating its widespread distribution. Thirty *Phyllosticta* isolates were then selected for studying their antibacterial activity. For this, the fungal strains were cultured in potato dextrose broth and cultivated at 27 C for 2 weeks. The fungal mycelia were removed and the culture supernatants were extracted using ethyl acetate. Antibacterial activity screening was then carried out using an agar disc diffusion assay. Our data showed that most *Phyllosticta* crude extracts (87%) were active and could inhibit at least one of the testing bacteria.**

Key words: Antibacterial activity, diversity, *Phyllosticta*, secondary metabolites.

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