

The essential oil profiles and antibacterial activity of six wild *Cinnamomum* species.

Abstrak

The essential oil composition of six species of wild *Cinnamomum* found in Borneo was investigated. The oils were obtained from bark by hydrodistillation and the volatile chemical profile was obtained via Gas Chromatography-Mass Spectrometry (GCMS). A total of 65 volatile constituents were identified, where the essential oils of the studied specimens contained high contents of oxygenated monoterpenes. Eucalyptol (1.2-31.1%), terpinen-4-ol (7.9-22.1%), eugenol (0.4-37.9%) and α -cadinol (0.4-1.8%) were detected consistently in the specimens studied. The oils of *C. cuspidatum* and *C. crassinervium* exhibited significant inhibition against *Listeria monocytogenes*, specifically the latter, which displayed a lower minimum bactericidal concentration (MBC) value against *Staphylococcus aureus* and *L. monocytogenes*. This result had highlighted the possible usage of the essential oil derived from wild cinnamom species against food borne pathogens.