

## Screening of phytochemical compounds of *Gigantochloa scortechinii* bamboo rhizome

### ABSTRACT

Bamboo leaves, culms, and roots are the most common bamboo part being studied regarding phytochemical functional properties. Many studies on various rhizomatous plant species, however, found potent functional properties of their rhizome part. This led an incline to explore the potential of bamboo rhizome and hence to promote its utilization. The aim of this study was to assess the variation of phytochemical compounds in the ethanolic extracts of *Gigantochloa scortechinii* bamboo rhizome. Destructive sampling was conducted using selective random sampling method on four consecutive rhizomes from healthy clumps at two natural forests and one planted forest. Homogenized sample were extracted using solvent extraction (70% ethanol) method. The extracts were analyzed using Gas Chromatography-Mass Spectrometry to identify the composition and concentration of phytochemical compounds. Screening process is important to get a clear figure of the compounds present in a plant and also important to assess whether presence of harmful compound. Results indicate that a total of 56 compounds were identified and distinguished between study site and rhizome age. The variation of its composition and concentration are suggested to be more affected by age-related factor with regard to variation of compound composition and concentration. Results also indicate that *G. scortechinii* rhizome contain various phytochemical compounds with potential as a plant of phyto-pharmaceutical importance.

**Keyword:** Bamboo; Age-related; GC-MS; Solvent extraction; Phytochemica