ANTIOXIDANT ACTIVITY, TOTAL PHENOLIC AND FLAVONOID CONTENT OF BIOACTIVE FRACTIONS OF *Symplocos polyandra* LEAVES

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ABSTRACT

Symplocos polyandra, locally known as *balakbakan,* is distributed throughout Southeast Asia, especially in the Philippines. The lack of available literature regarding the phytochemistry of this plant species prompted the conduct of testing of its potential antioxidant activity and quantification of its total flavonoid content and phenolic content. *Balakbakan* leaves were collected, exhaustively extracted with methanol, and fractionated on a silica gel column. 2,2-diphenyl-1-picrylhydrazyl (DPPH) assay showed that the acetone fraction has the highest percent DPPH radical inhibition with 86.41% at 500 ppm compared to 0.5 mM ascorbic acid at 87.61%. The acetone – methanol fraction has the highest ferric reducing capacity with a value of 208.24 µM ascorbic acid equivalents at 500 ppm. The total phenolic content of the different fractions ranged from 21.88 to 29.99 µg/mL catechin equivalents, with hexane - acetone fractions having the highest value. The flavonoid content ranged from 14.28 to 16.64 µg/mL catechin equivalents, with the methanol fraction having the highest value. The compounds responsible for the high antioxidant activity may not be a phenolic or flavonoid. Fractions from *Symplocos polyandra* are a promising source of bioactive compounds with antioxidant activity. Cytotoxicity test and analyses of alkaloid and chlorophyll content of the leaves is recommended for the leaves to be developed into tea products.