

**TOTAL PHENOLIC CONTENT (TPC) AND ANTIOXIDANT ACTIVITY OF  
WATER AND METHANOL EXTRACT FROM THE LEAVES OF  
*Ficus deltoidea* var *angustifolia* sp.**

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## ABSTRACT

### **TOTAL PHENOLIC CONTENT (TPC) AND ANTIOXIDANT ACTIVITY OF WATER AND METHANOL EXTRACT FROM THE LEAVES OF *Ficus deltoidea* var *angustifolia* sp.**

This study was conducted to evaluate the Total Phenolic Content (TPC) and to determine antioxidant activity from leaves of *Ficus deltoidea* var *angustifolia* species. The samples were extracted using water and methanol as a solvent. The Total phenolic content was determined from the standard calibration curve of gallic acid and the antioxidant was measured using DPPH radical scavenging method. The result obtained showed that water extract contained higher value (7830 mg/g GAE) compared to methanol extract (3216 mg/g GAE) and the water extract has a higher DPPH scavenging activity as compared to methanol extract.

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background and problem statement

Plant life in Malaysia is a very complex subject. It is complex in many ways, partly because there are so many kinds of plants, partly because of the great diversity of form and structure among those plants, and partly because peninsular Malaysia climate evokes different plant. Malaysia has no cool season, and very slight dry season. In most part of the country, rain falls throughout the year. As a result Malaysia is a green country. The forest is evergreen, and countryside is mainly evergreen and apart from the seasonal flowering a few kinds of deciduous trees in some places. The different kinds of plants behaving in many different kinds of ways (Holttum, 1954).

Family Moraceae is the one of the kingdom plant. Moraceae were included in an “order” or “family” with the subdivision of Ulmaceae, Celtideae, Cannabineae, Moreae, Artocarpeae, Conocephaleae and Urticaceae. The Moraceae are trees, shrubs, climbers, usually dioecious, without or with uncinata hairs. The leaves are alternate, distichous or in spirals (Berg & Cornelis, 2001).

The Moraceae are basically woody. However, nearly 10% of the species are herbaceous. Most of the herbaceous species belong to the genus *Dorstenia* and genus *Fatoua* Gaudichaud. About 30% of the species are basically hemiepiphytic and they are