



### DETERMINATION OF RADICAL SCAVENGING ACTIVITY OF HYDROALCOHOLIC AND AQUEOUS EXTRACTS FROM *BAUHINIA DIVARICATA* AND *BOUGAINVILLEA SPECTABILIS* USING THE DPPH ASSAY.

#### ABSTRACT

*Bauhinia divaricata* and *Bougainvillea spectabilis* are medicinal plants widely distributed in Mexico and they are used because of its potential hypoglycemic action; however, no free radical scavenging activity (RSA) studies over these plants are known. Thus, aqueous and hydroalcoholic extracts from leaf and stem samples were evaluated for their RSA using 1,1-diphenylpicrylhydrazyl free radical (DPPH<sup>•</sup>). Total phenolics and flavonoids extracts were determined too. Statistical analyses were performed using the SPSS statistical program with the significance level set at  $P < 0.05$ . *Bauhinia divaricata* stem aqueous extracts with total phenols content of 12.98 mg GAE/g DW had the highest amount between samples. The same behavior was shown in flavonoids determination. However, when RSA was estimated it was found that stem aqueous extracts from *Bougainvillea spectabilis* produced more DPPH absorbance reduction (95.66%), with an IC<sub>50</sub> (the concentration to inhibit the oxidation of DPPH by 50%) and AP (reciprocal of IC<sub>50</sub>) values of 0.03 µg/mL and 33.33, respectively. These results were superior to common synthetic antioxidants used in the food industry like butylated hydroxyl toluene (BHT, IC<sub>50</sub>=62 µg/mL) and can be useful for further applications of these plants or its constituents in pharmaceutical and alimentary preparations.

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