



### ABSTRACT

*Cuphea aequipetala* and *Cuphea lanceolata* native to Mexico are used in folk medicine. Extraction procedure standardization was performed and the amount of total phenolic compounds and flavonoids was determined in methanol extracts (obtained by stirring for 24 h) from various organs of *C. aequipetala*, *C. aequipetala* var. *hispida* and *C. lanceolata*. The antioxidant properties of extracts were compared using in vitro free radical-scavenging assays (1,1-diphenyl-2-picrylhydrazyl (DPPH<sub>+</sub>) and 2,2'-azinobis (3-ethylbenzothiazoline-6-sulphonic acid (ABTS<sub>+</sub>)) and the reducing power of phosphomolybdenum (PPM). A significant correlation was found between antioxidant activity and the amount of antioxidant components. Flowers of *C. lanceolata* showed the highest concentration of phenolic compounds (62.79<sub>±</sub>0.05 mg gallic acid equivalents (GAE)/g dry weight (DW) and the highest content of flavonoids was found in leaves of *C. aequipetala* (196.83<sub>±</sub>2.9 mg quercetin equivalents (QE)/g DW). The highest free radical-scavenging activity against DPPH<sub>+</sub> was found in leaves of *C. aequipetala* var. *hispida* (173.33<sub>±</sub>2.12  $\mu$ mol trolox/g DW), for ABTS<sub>+</sub> in flowers of *C. aequipetala* (541.10<sub>±</sub>2.32  $\mu$ mol trolox/g DW) and for PPM in leaves of *C. aequipetala* (1186.25<sub>±</sub>3.17  $\mu$ mol trolox/g DW). Qualitative analysis indicated the presence of the flavonoid quercetin 3-O-D-glucoside in all the species of *Cuphea* amongst other less polar flavonoids in *C. aequipetala* var. *hispida*. *Cuphea* spp. are prospective sources of phenolic compounds.

<http://rmiq.org/new%20page/Pdfs/Vol.%2011,%20No.%203/Bio3/Bio3.html>

CEPROBI - IPN

**Autores: B.A. Cárdenas-Sandoval, A.R. López-Laredo, B.P. Martínez-Bonfil, K. Bermúdez-Torres and G. Trejo-Tapia\***