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Detection of medicinally Effective Compounds in Two Genera of Ornamental Palm Leaves and Roots (*washingtonia filifera* and *Phoenix* sp.)

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Abstract. Many plants are economically important as they are an irreplaceable source of essential alkaloids, saponins, tannins, glycosides, resins, coumarins and other biologically active compounds, For this purpose, the current study was conducted in the Medicinal and Aromatic Plants Unit- College of Agriculture, University of Basrah. To detect medicinally active compounds (alkaloids, saponins, tannins, glycosides, resins, and coumarins) in the roots and leaves of two genera of the ornamental palm, *Washingtonia filifera* and four species from the genus *Phoenix*; *P. canariensis*, *P. pusilla*, *P. roebelenii* and *P. humilis*. The qualitative analysis of chemical compounds in the leaves was also carried out using the GC-MS technique. The results demonstrated that the leaves of *Washingtonian filifera* tree recorded high concentrations of all the mentioned compounds, while the roots contained these compounds in much smaller quantities. Alkaloids and coumarins were not recorded in the roots of *Phoenix Canariensis*. However, in the leaves of *Phoenix Pusilla*, a low concentration of resins was observed, with the absence of glycosides and coumarins. Meanwhile, the proportions of glycosides and coumarins increased. whereas alkaloids and saponins were not detected in the roots. *Phoenix robellinelli* did not show a positive presence of coumarins compounds. Similarly, its roots did not show presences presence of most of the mentioned compounds. The results indicated that *Phoenix humilus* leaves contain all of these compounds in high proportions, with the exception of resins, which were not clearly positive.

Keywords. Medically effective compounds, Ornamental Palm, *Washingtonia filifera*, *Phoenix* sp.

1. Introduction

The palm tree belongs to a family of monocotyledons plants known as Areacacea. It is a flowering plant family including 181 genera and about 2600 species, Washingtonia is a genus of palms belonging to the Coryphoideae subfamily (Coryphieae tribe and Livistoninae subtribe) and including two species; *Washingtonia filifera* and *Washingtonia robusta*. The Washingtonia palm known as the