



PHENOLIC PROFILE AND ANTIOXIDANT ACTIVITY OF *Schinus terebinthifolius* RADDI FROM DIFFERENT LOCATIONS

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Abstract: *Schinus terebinthifolius* Raddi (Anacardiaceae) is popularly known as aroeira and is widely used for its antiallergic and antifungal properties, among others.^{1,2} In Brazil the species is geographically distributed in the south, southeast and in a great part of the northeast region of the country.³ Mono, di, and triterpenes, flavonoids, phenolic acids and bisphenols are some of chemical substances present in this species.⁴ Aroeira is economically relevant because its fruits are used as a spicy and because it arouses great interest in the pharmaceutical industry. In this study we compared the phenolic profile by high-performance liquid chromatographic method with diode-array detection (HPLC-DAD) and the antioxidant activity against 2, 2-diphenyl-1-picryl-hydrazyl-hydrate (DPPH) free-radical of two aqueous extracts (decoctions) from aroeira leaves collected in different places (Itaipuaçu – RJ e Maceió - Al). Analyses of total phenolic compounds by the Folin-Ciocalteu method and total flavonoids by the aluminum chloride were also carried out. It was possible to detect a difference in the chemical profile by HPLC-DAD, in the total flavonoids content and in the antioxidant capacity between specimens from Itaipuaçu and Maceió. Both antioxidant and total flavonoids content were greater in individuals from Maceió (EC₅₀ value of 3,10 µg/mL for individuals Maceió and EC₅₀ value of 17,11 µg/mL for individuals Itaipuaçu, and for value of total flavonoids is 5,18 mg quercetin/g extracts, for individuals Maceió and 3,29 mg quercetin/g extracts, for individuals Itaipuaçu). This result shows the possible existence of a relationship between the content of flavonoids in specimens and their antioxidant activity. The present study has an unprecedented approach of chemical aspects of *Schinus terebinthifolius* from two different geographical origins, southeast and northeast of Brazil.

References:

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