

## Investigation of physico-chemical and phytochemical properties of different extracts of *Eclipta prostrata* (Linn.) grown in Sri Lanka

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*Eclipta prostrata* (Linn.), commonly known as ‘keekirindiya’ in Sinhala and ‘karippan’ in Tamil belongs to the family Asteraceae. Even though *E. prostrata* is used in traditional system of medicine in Sri Lanka, a detailed pharmacognostical study has not been carried out for the plant of Sri Lankan origin. Powder microscopy and detailed anatomical characteristics of *E. prostrata* were reported in our previous study. Depending on the geographical differences, environmental factors and availability of macro- and micro-nutrients, presence of secondary metabolites and their quantities might change. Thus, the aim of this study was to investigate the physico-chemical and phytochemical properties of different extracts of *E. prostrata* grown in Sri Lanka and Thin Layer Chromatography (TLC) fingerprinting. Whole plant was sequentially extracted into hexane, dichloromethane, ethyl acetate, methanol and water using continuous Soxhlet extraction. Physico-chemical and phytochemical analysis were performed as per standard protocols. Total ash, acid insoluble and water-soluble ash content were  $17.1 \pm 0.3\%$ ,  $0.4 \pm 0.0\%$  and  $9.5 \pm 0.2\%$ , respectively. Water extractable matter (cold:  $6.0 \pm 0.0\%$ , hot:  $7.9 \pm 0.1\%$ ) was higher than that of ethanol extractable matter (cold:  $1.0 \pm 0.0\%$ , hot:  $1.8 \pm 0.1\%$ ). Flavonoides, tannins, saponins, monoterpenes, quinones, steroids, coumarins, cardiac glycosides and phenolics were found in hot aqueous and methanol extracts. Sesquiterpenes, steroids, oil and fats were found in hexane, dichloromethane and ethyl acetate extracts. The TLC fingerprinting revealed an abundance of secondary metabolites in different fractions of *E. prostrata*. Further studies are warranted to isolate and characterize medicinally important compounds from different parts of *E. prostrata* grown in Sri Lanka.

**Keywords:** Keekirindiya, Karippan, TLC fingerprinting, secondary metabolites

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