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POSTER

**Taxonomic and Phytochemical Study on *Albizia lebbbeck* and Substitute Plants used in Ayurvedic Drug Preparations in Sri Lanka**

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Nowadays consumption of herbal medicines is widespread and has increased dramatically. The main supply of herbal material for ayurvedic drug preparations is from the wild. It causes inherent problems: misidentification, phenotypic variability, extract variability and adulteration. The pharmacognostic evaluation is the preliminary step in the standardization of crude drugs which provides valuable information in morphology and physical characteristics, and the purity and quality of the plant drugs.

*Albizia lebbbeck* (Sinhala- Mara, Sanskrit-Mahari, Hindi- Shiris ) is a South Asian medicinal plant widely cultivated and naturalized in tropical and subtropical regions. In Sri Lanka many substitute plants are used due to the restricted distribution which has caused ambiguity in utilizing accurate plant material. The present study focuses on exploring the use of *A. lebbbeck* and its substitutes in ayurvedic drug preparations with reference to their morphological and pharmacognostic similarity.

A questionnaire survey was carried out, using a randomly selected sample population of 100, to determine the use of substitute plants and it revealed that three plants in the subfamily Mimosodeae, *Albizia odoratissima* (Sinhala-Suriya mara), *Adenantha pavonina* (Sinhala-Madatiya) and *Samanea saman* (Sinhala-Pare mara) are used widely in Sri Lanka, whereas *A. odoratissima* is being predominantly used in drug preparations. Specimens of the above plants were collected from the natural habitats and identified using the authenticated specimens at the National Herbarium.

Methanolic bark extracts of *A. odoratissima* and *A. pavonina* were subjected to a preliminary phytochemical screening to detect the different secondary metabolites, such as carbohydrates, proteins, amino acids, glycosides, and alkaloids. Further, phytochemical screening was carried out using solvents; ethyl acetate, methanol and water. Thin Layer Chromatography was performed on each extract, for the qualitative and quantitative analysis. High yield was obtained from methanolic extracts that indicated the presence of polar compounds. Chromatographic properties have showed the variation of chemical profiles in these two bark extracts. These compounds will be characterized by fractional analysis, and their distributional patterns in these plant species will be compared to evaluate the effectiveness as substitutes to *A. lebbbeck*.