ASSESSMENT OF MEDICINAL PLANT DIVERSITY AND PHARMACOLOGICAL POTENTIAL IN SINNAURANI, BATTICALOA, SRI LANKA

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A key component of the Siddha system of medicine is the use of medicinal herbs, where the pharmacological actions of specific plant parts are harnessed in the formulation of therapeutic preparations. This study aims to explore and assess the diversity of medicinal plants in Sinnaurani, Batticaloa, with special reference to their pharmacological actions. Sinnaurani, situated within agriculturally fertile land known as *Maruda nilam*, which offers an ideal environment for the growth of potent medicinal herbs due to its nutrient-rich soil. Field surveys were conducted from February 2024 to February 2025, covering a study area located at approximately latitude 7.7338° N (7° 44′ 2″) and longitude 81.6672° E (81° 40′ 2″). The Belt Transect Method was employed to identify and enumerate medicinal plant species. Specimens collected during the fieldwork were authenticated using the Herbarium of the Faculty of Siddha Medicine, University of Jaffna. The survey exhibited 183 medicinal plant species belong to 57 families, with Fabaceae being the most represented highest. Identified key pharmacological actions commodities included tonics (54 species), astringents (44), laxatives (43), diuretics (39), stimulants (36), expectorants (32), demulcents (26), anthelmintics (26), alternatives (24), febrifuges (22), and stomachics (21). Therapeutic applications Results revealed included 19 species for *Kheel vayu* (arthritis), 16 for *Kapha noi* (respiratory diseases), 17 for *Sarma noi* (skin diseases), and 15 for *Mathumegam* (diabetes mellitus). The Findings highlight conclude the medicinal wealth of Sinnaurani and emphasize the need for of conservation and sustainable utilization. Further ecological studies and pharmacological validation are recommended.

Keywords: *Medicinal plants, Maruda nilam,* Pharmacological actions