

ETHNOBOTANICAL SURVEY OF MEDICINAL PLANTS IN NAGAR KOVIL, JAFFNA DISTRICT: A SIDDHA MEDICINE PERSPECTIVE

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Indigenous systems of medicine including Siddha medicine, are deeply reliant on medicinal plant diversity. This study was conducted in Nagar Kovil, Jaffna, situated within a dry ecological zone. It was hypothesised in this study that the unique interplay of dry-zone ecology and enduring cultural practices have fostered a significant reservoir of medicinally important plant species. A systematic ecological survey was conducted using 20 randomised belt transects (500 m² each), across three major habitat types: dry forest, wetland and agricultural lands. All medicinal plant species were identified and data on abundance, growth form, perenniality and ecological status were recorded. Quantitative data were analysed using descriptive statistics. The study identified 92 medicinal plant species from 84 genera and 42 families. The most species-rich family was Fabaceae (9 species; 9.78%), followed by Asteraceae and Euphorbiaceae (5 each; 5.43%). Herbs were the most abundant growth form (31 species; 33.70%), followed by shrubs (26.09%), trees (18.48%) and climbers (11.96%). The majority were perennial (54%). Leaves were the most utilised plant part (44.57%), followed by roots (34.78%) and flowers (26.09%). Therapeutically, most species were used for gastrointestinal (32.20%) and dermatological (29.66%) disorders, followed by respiratory ailments (19.49%). This foundational ecological inventory confirms Nagar Kovil as a significant reservoir of medicinal plants. The findings have critical implications: for conservation policy, they provide a basis to advocate for designating a protected medicinal plant zone; for public health, they highlight a resource for pharmacological research and potential integration of traditional medicine; and for ecological science, they contribute baseline data on dry-zone flora to biodiversity databases. A key limitation was the focus on ecological metrics; subsequent studies should integrate ethnobotanical interviews. This work underscores the urgent need for *in-situ* conservation strategies to ensure sustainability of these resources for cultural preservation, scientific discovery and community well-being.

Keywords: Conservation, Dry-Zone ecology, Ethnobotany, Medicinal plants, Siddha medicine