

Research Article

An Ethnopharmacological Study of Medicinal Plants in the Buffer Zone and Its Implication to the Conservation of Giam Siak Kecil-Bukit Batu Biosphere Reserve

Dolly Priatna^{1,4*}, Adi Susilo², Denny², Herman S. Simanjuntak³

¹*Graduate School of Environmental Management, Pakuan University, Jl. Pakuan Kotak Pos 452, Bogor 16143, West Java, Indonesia*

²*Research Center for Ecology and Ethnobiology, National Research and Innovation Agency, Cibinong, West Java, Indonesia*

³*KEHATI Foundation, Jl. Benda Alam I No. 73, Cilandak Timur, Ps. Minggu, Jakarta 12560, Indonesia.*

⁴*Belantara Foundation, Cashbac Building 3rd Floor, Jl. Timor No. 6, Gondangdia, Menteng, Jakarta 10350, Indonesia*

*Corresponding Author's E-mail: dollypriatna@unpak.ac.id

(Received: January 25, 2024; Revised: March 12, 2024; Accepted: March 18, 2024)

ABSTRACT

Local knowledge about natural resources is increasingly crucial in formulating conservation strategies and activities. This study collects data regarding medicinal plant use from Sepahat and Tamiang village residents. A total of 100 participants were included in the study, consisting of 50 participants from the Sepahat and another 50 from the Tamiang. Respondents were selected using the Snowball sampling technique, which involved identifying a key individual, such as local leaders, to initiate recruitment of other respondents. The study's findings indicate that the inhabitants of Sepahat village utilize 36 plant species belonging to 24 families, while Tamiang villagers use 11 plant species belonging to eight families. In Sepahat village, the botanical components used for medication comprise 25% rhizomes, 8% bark, 22% fruit, 3% shoots, 34% leaves, and 8% stems. In contrast, Tamiang comprises 23% rhizomes, 16% bark, 15% fruit, and 46% leaves. The utilization of stems and bark has the potential to pose a threat to sustainability. Among various uses, it has been observed that approximately 33% in Sepahat and 27% in Tamiang can lead to plant mortality. Conservation initiatives have been undertaken for 71% of Sepahat and 67% of the utilized plant species in Tamiang. Traditional medicines have been used for generations to treat various health conditions, such as back pain, bleeding, controlling cholesterol, coughs, dengue fever, and diabetes. While current use might not threaten the biosphere reserve, villagers must embrace sustainable harvesting techniques, including selective harvesting, replanting, and establishing community nurseries dedicated to cultivating medicinal plants

Key words: biosphere reserve, ethnopharmacological, Giam Siak Kecil-Bukit Batu, local knowledge, medicinal plant

