



RESEARCH COMMUNICATION

Ethnobotanical study of medicinal plants in Natai Sedawak village, Sukamara Regency, Central Kalimantan, Indonesia

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Abstract

The aim of the study was to inventory ethnobotanical potential of medicinal plants used by the people of Natai Sedawak and to know the diversity of the medicinal plant species in the forest of Natai Sedawak Village. This study used an exploratory survey method and data collection techniques with interviews and direct observations in the field. The study concluded that in the village of Natai Sedawak, 62 species of medicinal plants were found whose roots, stems, seeds, fruit, flowers, leaves, bark and sap are being used for various medicinal purposes by the local people.

Keywords

Ethnobotany, medicinal plants, questionnaire survey

Introduction

Indonesia's tropical forests, consisting of various types of ecosystems, are a repository of biodiversity for more than 239 types of food plants and more than 2039 types of medicinal plants that are useful for health and treating various diseases of humans and livestock. The population of Indonesia is more than 220 million people, most of whom live in rural areas and live around forest areas (as local communities). In general, they have the ability, life experience and traditional wisdom in managing natural resources as well as their utilization. The link between biodiversity and local systems that live in the community can be seen in the daily life of traditional communities in meeting their needs for food, clothing, shelter, medicine and spirituality (1-4).

In Indonesia, although modern health services have developed, the number of people who use traditional medicine remains high. According to the 2001 National Socio-Economic Survey, 57.7% of Indonesia's population did self-medication without medical assistance, 31.7% of them used traditional medicinal plants and 9.8% chose other traditional methods of treatment. Indonesia has a culture of traditional medicine, including the use of medicinal plants for a long time and has been preserved from generation to generation. However, the existence of cultural modernization can cause the loss of traditional knowledge possessed by the community (5, 6).

This trend also occurs in traditional communities in Indonesia. Every tribe in Indonesia has traditional knowledge which is usually passed down from generation to generation, which is generally done orally. The traditional knowledge possessed by each tribe in Indonesia needs to be documented through ethnobotanical studies so that the knowledge of the use of plants

owned by each tribe is not lost in cultural modernization. The people of Natai Sedawak Village still adhere to the culture of their ancestors, including in treatment efforts that still use medicinal plants around them for treatment or health care. They know the use of plants as ingredients of traditional medicine and apply them in their daily life. The inventory of medicinal plant species and their potential use as medicinal plants for the people of Natai Sedawak Village has never been carried out, so this research is expected to reveal public knowledge in utilizing plants as traditional medicine. It is hoped that the local/traditional knowledge of the people of Natai Sedawak Village can be well documented so that it remains sustainable.

Materials and Methods

Research on the ethnobotany of medicinal plants was carried out in Natai Sedawak Village, Sukamara District, Sukamara Regency, Central Kalimantan, Indonesia (Fig. 1).

Results and Discussion

There were 62 types of medicinal plants used by the local community based on the results of interviews and the questionnaire surveys. Plant parts such as the roots, stems, seeds, fruit, flowers, leaves, bark and sap were found to be used for various purposes

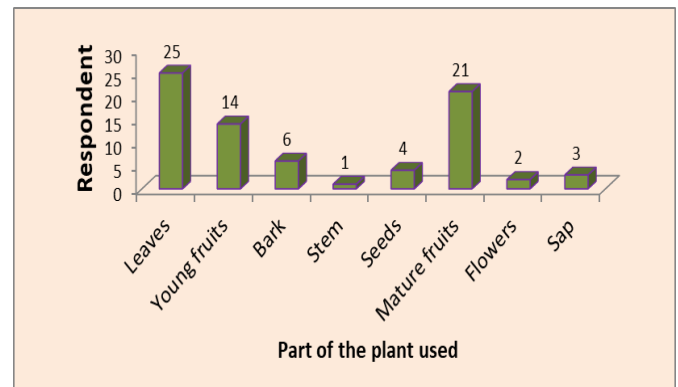


Fig. 2. Parts of medicinal plants used by the local people.

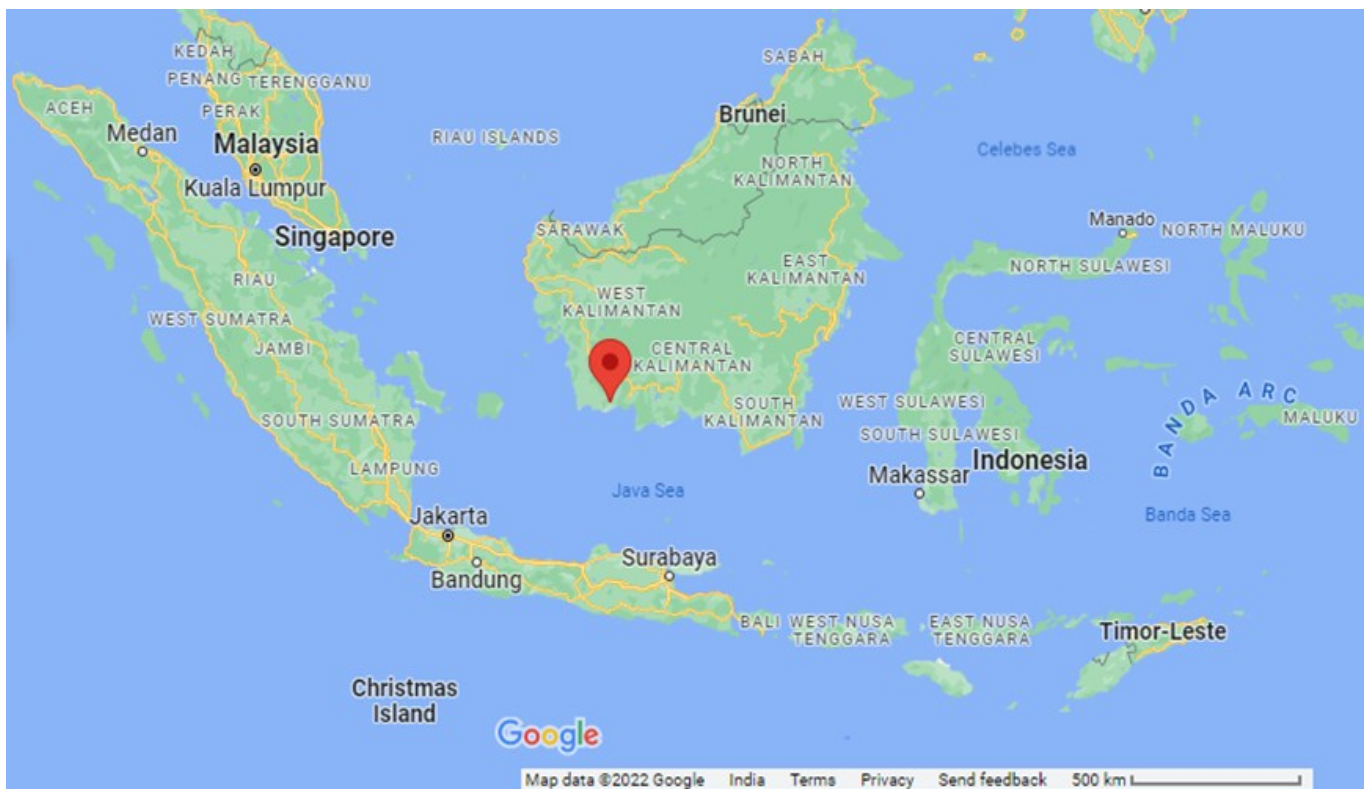


Fig. 1. Map showing the study location.

Data collection used two methods, namely the first exploratory survey with data collection techniques through observation, filling out questionnaires and direct interviews with 'key persons'. These key persons were determined through a *snowball* where the selection of respondents was based on the previous respondent's information with a total of 30 people. The majority of the population is *Dayak* (indigenous people) while other ethnic groups come from *Banjar* (immigrants) with low levels of education. The age range of the respondents was between 20 - 59 years and there were 2 elderly people in this group. The respondents consisted of 26 men and 4 women.

(Supplementary Table 1, Fig. 2) as reported in other studies (7, 8). Among the various plant parts, leaves were used for medicinal purposes widely as noted in some of the previous reports (9, 10).

Present study revealed that there are 62 types of medicinal plants used by the people of Natai Sedawak Village by utilizing the leaves, roots, stems, bark, flowers, fruit and sap. This research still requires species identification information for some of the taxa mentioned in this study and the chemistry of bioactive compounds present in the medicinal plants to obtain more complete and comprehensive information.

Acknowledgements

Authors thank the local people who participated in the interviews and the questionnaire survey used to collect ethnobotanical information.

Authors contributions

All authors contributed equally.

Compliance with ethical standards

Conflict of interest: Authors do not have any conflict of interests to declare.

Ethical issues: None.

Supplementary data

Table 1: Types of medicinal plants used by the people of Natai Sedawak Village, Sukamara Regency, Central Kalimantan.

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