JURNAL MULTIDISIPLIN MADANI (MUDIMA)

Homepage: https://journal.formosapublisher.org/index.php/mudima
ISSN: 2808-5639 (Online)
Research Article

Volume 5, No 4, April (2025)	DOI: https://doi.org/10.55927/mudima.v5i4.192	Page: 369-378

Identification of Species Diversity and Utilization of Medicinal Plants in Suranadi Nature Park, West Lombok

Gitta Safitri Idmulya Ade Kayanti[1], Muhamad Husni Idris[2*], Andrie Ridzki Prasetyo[3]
University of Mataram
Corresponding Author: Muhamad Husni Idris mhidris@unram.ac.id

ARTICLE INFO

Keywords: Species Diversity, Utilization, Medicinal Plants, Suranadi Nature Park

Received : *3 February*
Revised : *23 March*
Accepted : *22 April*

ABSTRACT

The forest area has considerable potential for medicinal plants. However, their usage remains limited. This study aimed to identify the diversity of medicinal plant species in Suranadi Nature Park and their application as traditional medicine among the residents of Suranadi Village. Data were collected through field observations and interviews held between December and February 2025 within the 52-hectare Suranadi Nature Park. This study used a sampling intensity of 2% and obtained 26 sample plots. Plot locations were determined using a systematic sampling technique with a random starting point. Interviews were conducted with 44 purposively chosen respondents to obtain information regarding the use of medicinal plants by Suranadi Village residents. Results showed that 78 species of medicinal plants from 40 families were found in the Suranadi Nature Park, with the Fabaceae family representing the highest number of species at 8% of the total. The medicinal plant habitus with the highest percentage is a tree at 53%. There are 59 disease categories that medicinal plants from Suranadi Nature Park can treat, with diarrhea being the primary condition addressed by 13 identified plant species, where leaves are the most used part, accounting for 44%

INTRODUCTION

Indonesia is one of the countries with abundant natural resources potential. The most significant natural resource is the forest, which is incredibly valuable due to its biodiversity, serving as a source of germplasm and providing various benefits (Yusub & Azham, 2017). Indonesia's biodiversity offers numerous advantages for human life, including sources of food, crafts, industry, economic viability, and health (medicine) (Purwanto et al., 2023). Among the approximately 30,000 biodiversity species, around 1,600 plant species show potential as medicines (Government Regulation of the Republic of Indonesia, 2014). This drives the development of research and exploration of potential medicinal plant species for current and future use.

Medicinal plants are plant species that possess medicinal functions and properties, used to cure and prevent various diseases (Rianti et al., 2019). The parts of plants used as medicine include roots, tubers, stems, bark, leaves, flowers, seeds, and fruit. Some parts can be used directly as medicine, while others must undergo processing (Sari & Suhartati, 2015). The progress of traditional health services utilizing traditional medicine is currently increasing rapidly. Approximately 51.12% of the Indonesian population uses traditional medicine, with its use observed across all age groups, including men and women, and in both rural and urban areas. The Ministry of Health encourages and facilitates the use and development of traditional Indonesian medicine through the declaration of its promotion (*Regulation of the Minister of Health Number 6 of 2016 Concerning Formalarium of Indonesian Indigenous Medicines*, 2016). Given the role of medicinal plants in supporting public health and the potential of these species, it is crucial to continue studying and exploring them. However, research on the diversity and utilization of medicinal plants, particularly in the Lombok area, remains lacking to date.

The research conducted in Sembalun Bumbung Village, near Mount Rinjani National Park in East Lombok Regency, identified 102 species of plants with medicinal potential (Riffani, 2016). A study on the diversity of medicinal plant species in the Wana Lestari Community Forest of Karang Sidemen Village, Central Lombok Regency, found 127 plant species that could serve as medicines (Hadi et al., 2023). Additionally, research on medicinal plants in the Sesaot forest, West Lombok Regency, revealed that 87 plant species have medicinal potential (S. M. Rahayu & Andini, 2019). Furthermore, studies conducted on medicinal plant communities in Kerandangan Nature Tourism Park, West Lombok Regency, identified 20 plant species with potential medicinal uses (Nanisfi et al., 2024). Given these findings, further research on the inventory of potential medicinal plants remains relevant. The distribution of medicinal plants found in various forest areas indicates that the forestry sector should support the availability of biodiversity data, particularly concerning medicinal plants in these regions (Nurzaini et al., 2022).

One of the locations targeted for research is the Suranadi Nature Tourism Park. According to the Minister of Agriculture Decree No. 646/Kpts/Um/10/76 dated October 15, 1976, the Suranadi Nature Tourism Park was established over an area of 52 hectares, situated in Suranadi Village, Narmada District, West Lombok Regency, West Nusa Tenggara Province. This study aims to identify the diversity of medicinal plant species in Suranadi Nature Park and their use as traditional medicine by the people of Suranadi Village. The results of this study are expected to provide scientific information to enhance integrated knowledge about medicinal plants and serve as additional scientific data to support the preservation of Suranadi Nature Park area.

METHODS

Time and Place

This research was conducted in December - February 2025, located in Suranadi Nature Park, Narmada District, West Lombok Regency, Nusa Tenggara Province. Suranadi Nature Park covers 52 hectares.

Sample Determination

The number of plots was determined based on the area of Suranadi Nature Park, which spans 52 hectares. A sampling intensity of 2% resulted in 26 sampling plots. For an effective inventory of nature reserves and conservation areas, sampling must fulfill representation, with an intensity ranging from 1.5% to 5% (KSDAE, 2016). The determination of sample locations in this study used a systematic technique with a random start. Direct observations were made at each sampling location in Suranadi Nature Park by making plots with a size of 20m x 20m. Data collected included species names and documentation. Identification of the species was obtained using literature studies in the form of Indonesian medicinal plant identification books and interviews with officers of Suranady Nature Park.

Determination of Respondents

The determination of respondents was conducted through purposive sampling, which involves selecting participants based on criteria that align with the research objectives (Lenaini, 2021). The criteria for respondents include natives of Suranadi Village who are knowledgeable about or utilize beneficial plant species and traditional medicine practitioners. The number of respondents was calculated using the Slovin formula, ensuring that the samples were representative (M. Rahayu et al., 2016). In Suranadi Village, the total population of families is 1,968. An error tolerance value of 15% was used to determine the sample size, leading to a total of 44 respondents in this study. Interviews with respondents were conducted using a questionnaire. Each plant species mentioned by the respondent was recorded by its local name, the part used, the disease treated, and how it is used. Then, the scientific name identification of plant data was obtained using literature studies through books, journals, or scientific articles.

Data Analysis

Diversity of medicinal plant species

Data analysis of the results of observations was tabulated and analyzed descriptively. The tabulated results were then used as the basis for determining the percentage value of the family and the percentage of medicinal plant habitus.

The percentage of medicinal plant families was calculated to determine the plant families that had the highest percentage of medicinal properties (Ningsih et al., 2020) with the formula:

$$\text{Percentage} = \frac{\sum \text{species of a particular family}}{\sum \text{species of all families}} \text{x}100\%$$

The percentage of medicinal plant habitus is calculated to determine the plant habitus that has the highest percentage of medicinal properties, calculated based on the formula:

$$\text{Percentage} = \frac{\sum \text{specific habitus species}}{\sum \text{species of all habitus}} \text{x}100\%$$

Utilization of Medicinal Plants

The utilization of medicinal plants by the people of Suranadi Village was obtained based on the results of interviews, and the data were tabulated and analyzed descriptively. The number of types of plant utilization as traditional medicine, gathered from field observations and interviews with the villagers, was calculated according to plant species. The types of medicinal plant utilization were categorized, and subsequently, the number of species within each utilization group was counted. The parts of medicinal plants used percentage was calculated using the following formula:

$$\text{Percentage of part} = \frac{\sum \text{specific part used}}{\sum \text{all part used}} \text{x}100\%$$

RESULTS AND DISCUSSION

Diversity of medicinal plant species

The medicinal plants found in the observation plots of Suranadi Nature Park comprised 78 species from 40 families. The results of this inventory are fewer when compared to research conducted in Sembalun Bumbung Village, East Lombok Regency, which identified 102 species from 44 families of medicinal plants (Riffani, 2016). Meanwhile, research in Buwun Sejati Village, West Lombok, identified 87 species from 42 families of medicinal plants (S. M. Rahayu & Andini, 2019).

This indicates that there are differences in medicinal plant vegetation in each region despite having the same average temperature of 30°C. Similar research has also been conducted in Kerandangan Nature Park, West Lombok Regency, which showed 21 species from 11 families of medicinal plants (Rosnizar et al., 2017). This result is lower when compared to the medicinal plants identified in Suranadi Nature Park. Each forest has distinct characteristics that contribute to the diversity of medicinal plant species in each forest type. The diversity of medicinal plants found in Suranadi Nature Park can certainly enhance the repertoire of medicinal plant species on the island of Lombok.

As seen from the number of plant species, the most common family of medicinal plants found in the Suranadi Nature Park in terms of the number of plant species is the Fabaceae family as much as 8% with 6 species. The percentage of medicinal plant families found in Suranadi Nature Park is presented in Figure 1.

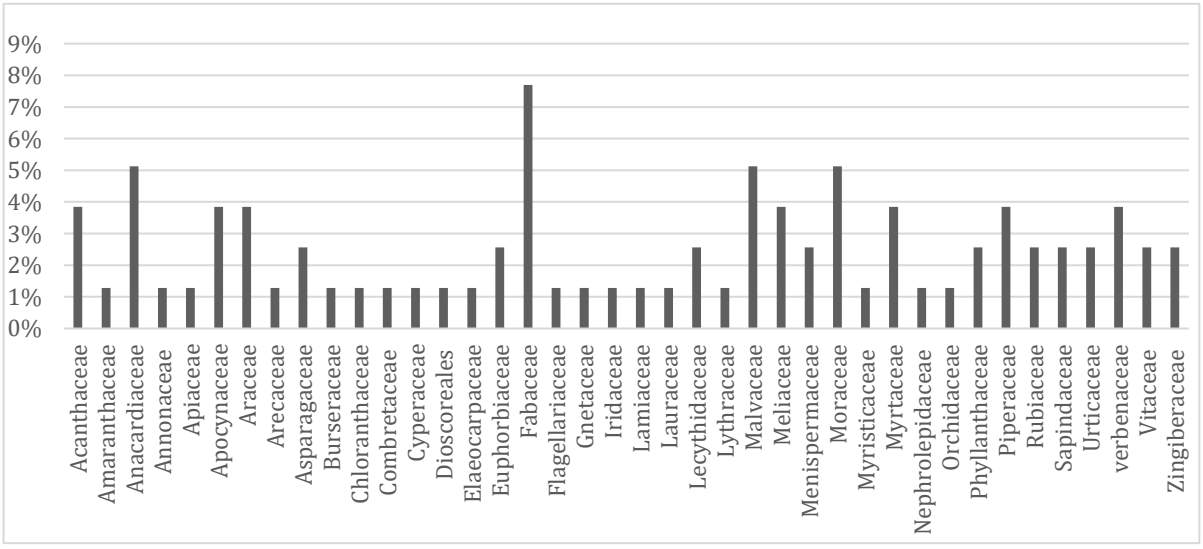

Figure 1. Percentage of Medicinal Plant families

In contrast to the results of research (Riffani, 2016), which revealed that Apocynaceae is the family most often used as medicine by the Sembalun Bumbung Village community. Research conducted in the Wana Lestari Community Forest, Karang Sidemen Village, Central Lombok Regency, revealed that the most found medicinal plant family was Asteraceae (Hadi et al., 2023). Meanwhile, research conducted by (Nanisfi et al., 2024) in TWA Kerandangan and (S. M. Rahayu & Andini, 2019) in Sesaot showed the similarity of the dominating family in the area, namely the Zingiberaceae family. Several factors can affect the number of plant families, namely, climatic conditions, altitude, and rainfall. The number of different medicinal plant families shows that the distribution of medicinal plants in Suranadi Village is quite diverse. Kaliandra (*Calliandra calothyrsus*), Saga (*Adenanthera pavonina* L.), Flamboyan (*Delonix regia*), Johar (*Cassia* sp), Sengon (*Albizia falcataria*), and Angsana (*Pterocarpus indicus* Willd.) are Fabaceae family plants. Fabaceae is one of the most found in the surrounding environment because it has cosmopolitan properties, can be resistant to various environmental conditions, very cold to warm temperatures, sub-tropical and tropical (Putri & Dharmo, 2018). The Fabaceae family can fertilize the soil because it can fix nitrogen from the atmosphere through its root nodule (Insyirah et al., 2025). Plants from the Fabaceae species can control soil erosion as a cover crop to reduce surface flow (Riffani, 2016). The least medicinal plant found was the ground orchid (*Nervillia concolor*) from the Orchidaceae family and 18 other families with a

percentage of 1%. Ground orchids are not parasitic plants because they do not get food from host plants. Ground orchid roots have an important function in the fixation and absorption of water and minerals (Hegde, SM, & Krishnaswamy, 2021). In their research (Putra & Fitriani, 2019) emphasized that the existence and growth of orchids in a habitat are strongly influenced by environmental conditions. The temperature of sunlight radiation can change environmental humidity from high humidity to low humidity and vice versa.

The types of plants that have been found can be grouped into 5 habitus groups, namely herb, shrub, bush, tree, and liana (Susanti et al., 2018). The results of the habitus percentage analysis are shown in Figure 2.

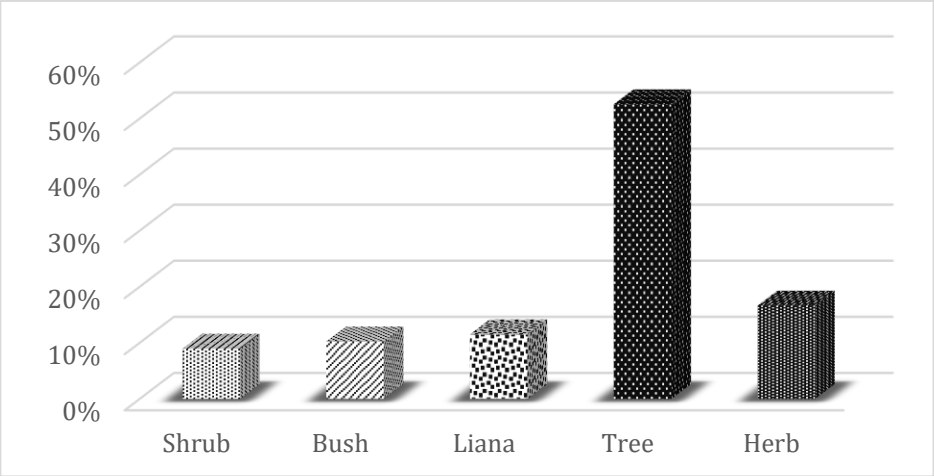

Figure 2. Percentage of Medicinal Plant Habitus

Habitus is the growth stature of a plant (Susanti et al., 2018).The diversity of medicinal plant species consists of several types of habitus. The habitus of medicinal plants with the highest percentage is trees, namely 41 species with a percentage of 53%, then herbs as many as 13 species or 17%, lianas as many as 9 species or 11%, shrubs as many as 8 species or 10% and medicinal plant habitus with the lowest percentage is shrubs as many as 7 species or 9%. The dominance of medicinal plants with tree habitus indicates good forest conditions. Trees function to maintain water quality, support the food chain, maintain temperature, and surface water sources (Yeleni et al., 2023). Herbaceous habitus is also commonly found because of its ability to grow in various locations (Hadi et al., 2023). In line with the statement (Mingga et al., 2019), herbaceous plant habitus is fast-growing and easy to plant.

Utilization of Medicinal Plants

Medicinal plants that are utilized as traditional medicine by the people of Suranadi Village are listed in Table 1.

Table 1. Medicinal Plant Species Utilized by the People of Suranadi Village

No	Scientific Name	Efficacy	How to concoct
1	*Stachytarpheta jamaicensis* (L) Vahl	Laryngitis	Boiled, drunk
2	*Centella Asiatica* (Linn.) Urb.	Deep Heat and Wound	Cleaned, mashed, drunk or directly eaten the leaves
3	*Strobilanthes crispus*	Kidney Stone	Boiled, drunk
4	*Zingiber cassumunar*	Lung	Grated, added lime, inggu leaves boiled, drunk
5	*Piper nigrum* L.	Dizziness	Mashed with garlic, attached to the temples
6	*Piper betle* L.	Eye	The leaves are washed, then boiled, and soaked in water

No	Scientific Name	Efficacy	How to concoct
7	*Swietenia mahagoni*	Malaria	The seeds are eaten directly by inserting them into the banana
8	*Cordyline fruticosa* L.	Earache	Andong leaf shoots, mashed, added a little salt, then insert a cotton swab and drop it in the ear.
9	*Phyllanthus amarus*	Body Heat	Boiled, drunk
10	*Syzigium polyanthum* [Wight.] Walp.	Uric Acid Medicine	Boiled, drunk

Source: Primary Data (2025)

The people of Suranadi Village utilize various types of plants as traditional medicine. Traditional medicine is a concoction of plant materials that has been used for generations for treatment, and its application is by the norms prevailing in the community. Medicinal plants have been used as traditional medicine since ancient times because they play an important role in maintaining body health, maintaining stamina, and treating various diseases (Metananda, 2015). There are 78 species of medicinal plants found in Suranadi Nature Park, but only 10 species of plants are used by the people of Suranadi Village as traditional medicine. Some of the utilization of medicinal plants by the people of Suranadi Village are medicinal plants that are used by eating directly the plant parts. Mahogany seeds (*Swietenia mahagoni*) are used for malaria medicine; they are used by inserting mahogany seeds into bananas and directly eaten. Heat medicine is used by horse tread plants (*Centella Asiatica*) utilized by juicing or eating the leaves directly. Most treatment methods use a single plant part. However, there are diseases that use a mixture of several types of plants; for example, for lung pain, drugs used bangle plant rhizomes (*Zingiber cassumunar*) are grated and then mixed with a decoction of inggu leaves and lime juice and then drunk. Shortness of breath medicine andong leaves (*Cordyline fruticosa* (L.)), castor leaves, garlic, pepper and turmeric then all pounded then applied to the tight chest. The use of other additives such as arena sugar or soy sauce is done in some medicinal concoctions, this aims to reduce the sour or bitter taste of the medicinal plants used. There is no standard dosage used by the belian. The dosage used in concocting medicine is by the provisions used by each person who prepares the medicine.

Medicinal plants are all types of plants that have medicinal properties to maintain and cure various types of diseases, from mild illnesses to various severe diseases (Freliyana, 2021). Medicinal plants found in Suranadi Nature Park have a variety of uses. There are 78 species of medicinal plants with 59 types of disease groups. The most common use of medicinal plants is as a diarrhea medicine used by 13 species of medicinal plants, namely lempuyang (*Zingiber zerumbet*), Uwar Tali (*Flagellaria indica* L.), Salam (*Syzigium polyanthum*), Sirih hutan (*Piper aduncum*), Dao daun besar (*Dracontomelon mangiferum* BL), Bunut (*Ficus variegata*), Mangga (*Mangifera indica L.*), Pagoda (*Clerodendrum paniculatum* L.), Kaliandra (*Calliandra calothyrsus*), Kluwih (*Artocarpus altilis* (Parkinson) Fosberg), Angsana (*Pterocarpus indicus* Willd.), Kepundung (*Baccaurea racemosa* (Reinw.)) dan Dao daun kecil (*Dracontomelon dao* (Blanco)). The diversity of chemical compounds contained in plants can have medicinal benefits. In general, medicinal plant species can be used to treat more than one type of disease, even being a mixture in various medicinal herbs such as Pecut kuda (*Stachytarpheta jamaicensis*), which has uses as a medicine for fever, malaria, tonsils, and influenza. However, there are also plant species that can only be used to treat one type of disease (Metananda, 2015). Based on the results of observations and interviews, the number of types of plant utilization as traditional medicine based on plant species were obtained, as shown in Figure 3.

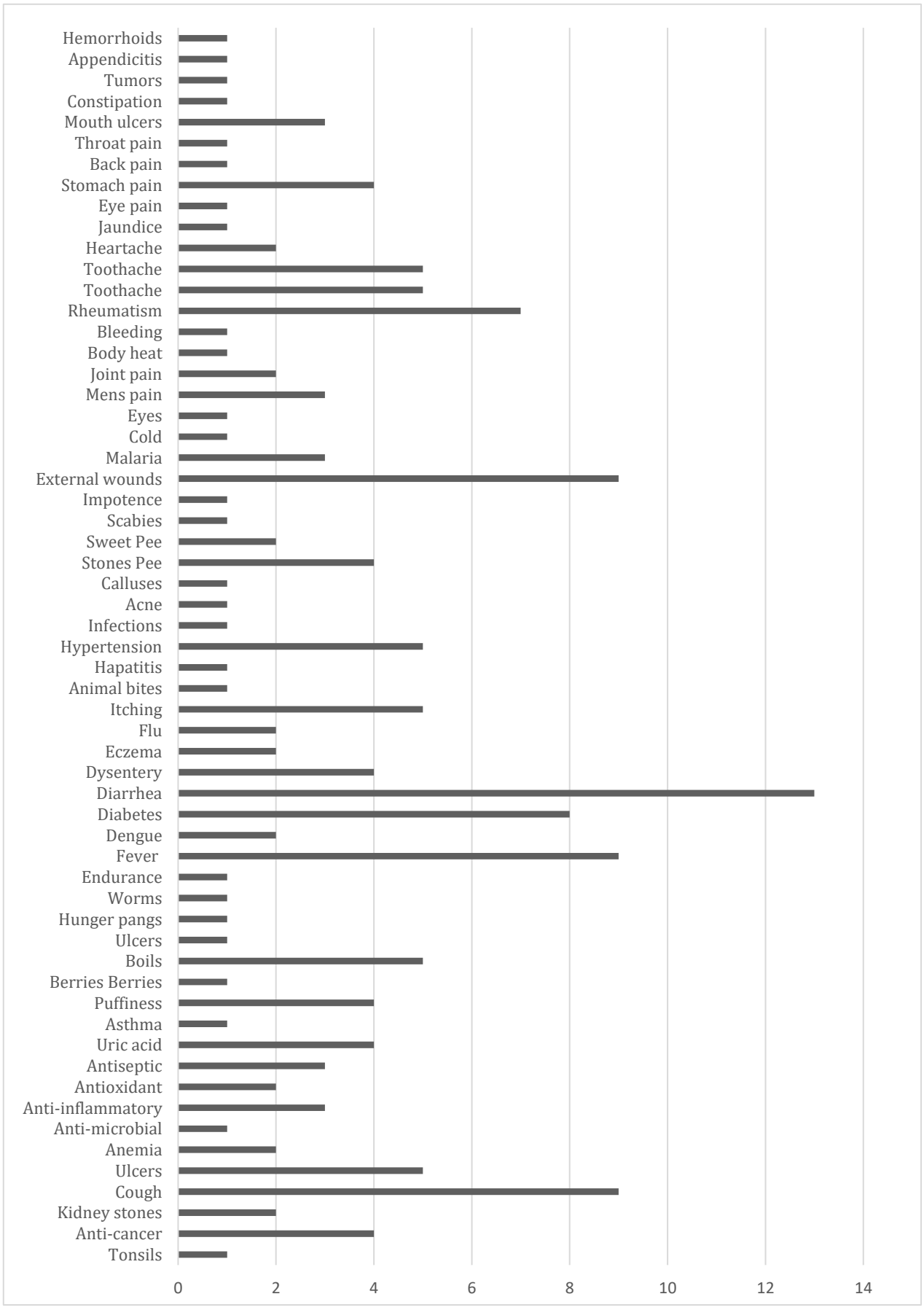

Figure 3. Utilization of Plant Species as Traditional Medicine

Parts of medical plants used as medicine are all parts of the plant or only certain parts such as leaves, stems, skin, fruit, seeds, flowers, and roots. The percentage of the use of plant parts can be seen in Table 2.

Table 2. Percentage of Medicinal Plant Parts Used

Part Used	Percentage (%)
Roots	9
Trunk	10
Leaves	44
Flowers	5
Fruit	12
Skin	10
Seeds	6
All parts	5
Total	100

Source: Primary Data (2025)

The heritage of utilizing plants as medicine has been used almost all over the world, not just for certain circles. Plant parts used for traditional medicine are all parts of the plant or only certain parts such as leaves, stems, skin, fruit, seeds, flowers, and roots. The most widely used parts of medicinal plants are leaves as much as 55 uses with a percentage of 44%, then fruit as much as 15 uses with a percentage of 12%, skin and stems as much as 12 uses with a of 10%, roots as much as 11 uses with a percentage of 9%, seeds as much as 8 uses with a percentage of 6% and the least used parts are flowers and all parts of the plant with a percentage of 5%. Research conducted in Sembalun Bumbung also obtained similar results, the leaves being the most widely used part of the plant as a medicine (Riffani, 2016). The use of leaves, fruits, twigs, and branches does not have a bad impact on plant survival, but using the roots, skin, or all of these parts can be a threat to the existence of a species because its use can make plants die. By the statement (Susanti et al., 2018), the leaves become a widely used part because the leaves become a place for processing plant nutrients, easy to obtain and process, and their use does not damage plants.

CONCLUSION

Based on the results of research on the identification of medicinal plant species in Suranadi Nature Park and their utilization by the people of Suranadi Village, it can be concluded that: (1) There are 78 types of medicinal plants identified in the Suranadi Nature Park area from 40 families. The medicinal plant family with the most plant species is Fabaceae, with a percentage of 8%. The habitus of medicinal plants with the highest percentage is a tree at 53%. (2) There are 59 disease categories from medicinal plants found in the Suranadi Nature Park area. The most utilization of medicinal plants is as a remedy for diarrhea, which is used in 13 plant species with the most widely used plant part as medicine is the leaf as much as 44%.

REFERENCES

Freliyana, N. I. A. (2021). *Inventory of medicinal plants in lenggang village, east belitung district*.

Government Regulation of the Republic of Indonesia. (2014). Government Regulation of the Republic of Indonesia No. 103 on Traditional Health Services. *Indonesia*, *369*, 1–39.

Hadi, M. A., Latifah, S., Aji, I. M. L., Valentino, N.,

& Prasetyo, A. R. (2023). Diversity of Medicinal Plant Species in Wana Lestari Community Forest, Karang Sidemen Village. *Journal of Forest Science Avicennia*, *06*(37), 26–38. https://doi.org/10.22219/avicennia.v6i1.21715

Hegde, SM, & Krishnaswamy, K. (2021). *Anatomical adaptations in roots of four Nervilia species (Orchidaceae)*. *37*(2), 235–241.

Insyirah, A., Prijadi, S. M., Az-zahra, F., Hasanah, A. N., & Zuhrotun, A. (2025). *Assessment of Total Phenolic and Flavonoid Content from Nine Different Families of Herbal Medicines Originated from West Java , Indonesia Total Kandungan Fenolik dan Flavonoid dari Sembilan Keluarga Obat Herbal Asal Jawa Barat , Indonesia*. *12*(1), 49–62.

KSDAE. (2016). *Regulation of Director General of Natural Resources and Ecosystem Conservation No: P.10/KSDAE/SET/KSA.0/9/2016*. 71.

Lenaini, I. (2021). Purposive and Snowball Sampling Techniques. HISTORICAL: Journal of Studies, Research & Development of History Education. *HISTORIS: Jurnal Kajian, Penelitian & Pengembangan Pendidikan Sejarah*, *6*(1), 33–39. http://journal.ummat.ac.id/index.php/historis

Metananda, A. A. (2015). Food and medicine ethnobotany of communities around Mount Rinjani National Park. Gastronomía Ecuatoriana y Turismo Local. *Gastronomía Ecuatoriana y Turismo Local.*, *1*(69), 5–24.

Mingga, M., Oramahi, H. A., & Tavita, G. E. (2019). Utilization of Medicinal Plants by the Community in Raba Village, Menjalin District, Landak Regency. *Jurnal Hutan Lestari*, *7*(1), 97–105. https://doi.org/10.26418/jhl.v7i1.31005

Nanisfi, M., Santoso, D., & Japa, L. (2024). Community of Plants for Traditional Medicine in Kerandangan Natural Tourism Park West Lombok. *Jurnal Biologi Tropis*. http://jurnalfkip.unram.ac.id/index.php/JBT/article/view/6425%0Ahttps://jurnalfkip.unram.ac.id/index.php/JBT/article/download/6425/3752

Ningsih, K., Mariani, Y., Arbiastutie, Y., & Yusro, F. (2020). Studi Pemanfaatan Tumbuhan Obat Berpotensi Mengobati Pada Penyakit Pada Penyakit Sistem Pencernaan Di Kelurahan Bunut Kecamatan Kapuas Kabupaten Sanggau. *Jurnal Hutan Lestari*, *8*(2), 217–228. https://doi.org/10.26418/jhl.v8i2.39782

Nurzaini, R. R., Gumardes, A., Ganesworo, A., Pratiwi, A., & Heriyadi, M. Y. (2022). *STRATEGIC PLAN 2020-2024 DITJEN KSDAE*. *2021*, 66.

Purwanto, H., Alissa, V., Wulandari, S. E., Vilmala, B. K., & Suryanti, S. (2023). Inventory of Medicinal Plant Utilization in the Indigenous Prohibition Forest of Kenagarian Rumbio Kampar and its Relevance as an Ecopedagogical Learning Source Based on Local Wisdom. *Supernova Science Education Journal*, *1*(1), 28–39. https://doi.org/10.61291/supernova.v1i1.15

Putra, R. R., & Fitriani, R. (2019). Bioedusiana Exploration of Orchidaceae Plants in Galunggung Mount-Tasikmalaya as A Teaching Material in. *Bioedusiana*, *4*(2), 84–91.

Putri, A. I., & Dharmo. (2018). Plant Genus Diversity of the Fabaceae Family in the Tabanio Beach Forest Area, Tanah Laut Regency, South Kalimantan. *Prosiding Seminar Nasional Lingkungan Lahan Basah*, *3*(April), 209–213. https://snllb.ulm.ac.id/prosiding/index.php/snllb-lit/article/view/45/45

Rahayu, M., Rustiami, H., & . R. (2016). Ethnobotanical Study of Sasak Ethnic, East Lombok, West Nusa Tenggara. *Journal of Tropical Biology & Conservation (JTBC)*, *13*(January), 85–99. https://doi.org/10.51200/jtbc.v13i0.399

Rahayu, S. M., & Andini, A. S. (2019). Ethnobotanical Study on Medicinal Plants in Sesaot Forest, Narmada,West Lombok,

Indonesia. *Biosaintifika*, *11*(2), 234–242. https://doi.org/10.15294/biosaintifika.v11i2.19314

Regulation of the Minister of Health Number 6 of 2016 concerning Formalarium of Indonesian Indigenous Medicines (pp. 139–141). (2016).

Rianti, Y., Purwati, P., & Wahdina, W. (2019). Potential of Medicinal Plants in Bemban Village, Gunung Ambawang Protected Forest Area, Kubu District, Kubu Raya Regency. *Jurnal Hutan Lestari*, *7*(3), 1470–1477. https://doi.org/10.26418/jhl.v7i3.37623

Riffani, A. S. (2016). Utilization of Food and Medicinal Plants by Sembalun Bumbung Village Community around Mount Rinjani National Park. *Skripsi*.

Rosnizar, R., Maulida, S., Eriani, K., & Suwarno. (2017). The potential of flamboyan leaf extract [Delonix regia (Boj. Ex Hook.) Raf.] against the increasing activity and capasity of macrofag. *Jurnal Bioleuser*, *1*(3), 104–115.

Sari, R., & Suhartati. (2015). Porang Plant: Prospects for Cultivation as One of the Agroforestry Systems. *Info Teknis EBONI*, *12*(2), 97–110. http://ejournal.forda-mof.org/ejournal-litbang/index.php/buleboni/article/view/5061

Susanti, A., Wijayanto, N., & Hikmat, A. (2018). Diversity of medicinal plant species in repong damar krui agroforestry, Lampung province. *Conservation Media*, *23*(2), 162–168.

Yeleni, R., Karyadi, B., Sutarno, S., Uliyandari, M., Parlindungan, D., & Ekaputri, R. Z. (2023). Diversity of Tree-bearing Plants on the Susup Riverbank in Central Bengkulu Regency with Potential as Disaster Mitigation. *Bioscientist : Jurnal Ilmiah Biologi*, *11*(1), 433. https://doi.org/10.33394/bioscientist.v11i1.7871

Yusub, W., & Azham, Z. (2017). Inventory of Plant Species with Medicinal Properties in Medicinal Plant Conservation Plots in KHDTK Samboja Sub-District, Samboa District Kutai Kartanegara. *Jurnal Agrifor*, *XVI*(1), 125–140. http://ejurnal.untag-smd.ac.id/index.php/AG/article/view/2599