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# ETHNOBOTANIC STUDY OF TRADITIONAL MEDICINAL PLANTS IN SEROMBOU INDAH VILLAGE, ROKAN HULU DISTRICT, RIAU PROVINCE

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## ABSTRACT

The purpose of this study was to determine the plant species used by the community in Serombou Indah village. This research was conducted from March to June 2022. This research is a descriptive research using survey and interview methods. The results showed that 22 families of 27 plant species were used as traditional medicinal ingredients, the most dominant family was the Zingiberaceae family which consisted of 4 species, the Asteraceae family had 2 species and the Piperceae family had 2 species, while the other families had 1 species. The part of the plant that is most widely used as medicine is the leaves of 17 species and the least is the flower and tuber of 1 species. The most common processing method is by boiling 12 species and at least 1 species grated and cut. Diseases that can be treated with a maximum of 9 species of fever and at least 1 species of ringworm, nosebleeds and sprains.

***Keywords***: *Ethnobotany, Medicinal Plants, Serombou Indah Village*

## INTRODUCTION

Ethnobotany is a scientific discipline that studies the use of plants and interactions from social traditions. In interacting, people use various media and objects to convey a message. Messages are not only obtained through speech or writing but can be conveyed through objects in the environment such as plants. .Thus, Ethnobotany is the experience of traditional knowledge in advancing the quality of life, not only for humans but also the quality of the environment. Apart from being beneficial for humans, the environment, and protecting this knowledge, through protecting the types of plants used.

Medicine is a mixture of materials used to treat diseases both inside and outside the body. The mixture in question comes from plants, where plants that can be used as medicine are called medicinal plants. The use of plants as medicine is one of the studies in ethnobotany (Sarumaha, 2019: 266).

The progress of modern science and technology, which is increasingly rapid and sophisticated nowadays, apparently cannot simply ignore the role of traditional medicine from plants. Therefore, medicinal plants are still firmly rooted in people's lives to this day. In terms of side effects, it is recognized that medicine Traditional medicine has relatively small side effects compared to modern medicine (Sukmawati, et al, 2013: 10). The use of plant species as medicine has been used by people for generations, this is done as an effort to continue to preserve plant cultivation in the field of traditional medicine. Most of the plants These medicines are taken directly from the forest or garden, in the yard or from ornamental plants and some are taken from riverbanks. The reason why people use traditional medicinal plants is because medicinal plants are easy to find and do not cause major side effects. However, nowadays Knowledge about traditional medicinal plants and their general use tends to be very lacking. In fact, culture like this is very important to maintain to preserve the environment and also so that types of medicinal plants do not become extinct. This is the result of various factors, one of which is because you are lazy to look for medicinal plants and use them, or also because there are already various kinds of practical medicines from doctors so there is no need to know which plants are useful and contain medicinal properties. One of the efforts made to preserve plants is by collecting types of traditional medicinal plants (Ibrahim, 2016: 5).

In general, Serombou Indah Village has experienced an improvement in the quality of health, where community access to health services such as community health centers is easy to obtain, but apart from consuming doctor's medicines, people still use traditional medicines which are believed to be effective in treating various diseases. So they plant it around the house or take it from the forest. Based on the results of interviews with the people of Serombou Indah Village, they still use certain traditional medicinal plants to treat their illnesses, one of which is using the Sembung plant (Blumea balsamifera) to treat colds and daffodils (Crynum asiaticum) to treat sprains and (Zingiber purpureum) colds in babies.

Based on the description above, the author is interested in knowing what types of plants are used by the people in Serombau Indah Village and how to use these medicinal plants which includes the parts of the organs used, processing methods, and the types of diseases that can be treated from these plants by community towards the traditional plants used. Remembering that traditional medicine is usually used for first aid. Therefore, the author is interested in conducting research on "Ethnobotanical Study of Medicinal Plants in Serombou Indah Village, Rokan Hulu Regency".

## METHODS

This research was carried out in Serombou Indah Village in March-June 2022. This research is descriptive research using survey and interview methods. The equipment used in this research is stationery, camera, ruler, knife, electric oven, identification book sewing needle, glass frame and specimen bottles. The materials used are 70% alcohol, newsprint, cardboard, label paper, plastic bags, raffia rope, glue, manila paper and corn twine.

The way work in the field is carried out is through observation with people who know about medicinal plants, then interviews are conducted with respondents to find out the types of medicinal plants used, the parts used, how to use the plants and their uses in medicine, then record all the information obtained from the respondents. Next, all plant organs were documented with a camera, then for small plants all plant organs were taken and for large plants samples were taken (twigs complete with leaves). The plant organ samples were cut using a knife to a length of ± 30 cm, then the specimen samples were sprayed with alcohol and put in newspaper, then placed on cardboard that had been cut and closed tightly, then tied using raffia and put in a plastic bag. For samples (flowers, fruit and seeds), they are preserved by storing them in specimen bottles containing 70% alcohol and labeling each specimen (Murni, et al, 2015: 3).

Then all collections that have been preserved in the field are then taken to the Biology Education Study Program Laboratory to be made into specimens. In the laboratory the specimen samples are removed from their plastic bags. Then the specimens are stored in an electric oven at a temperature of 60°C for ± 3 days. After all the specimens are dry, each specimen is separated from its layers. The dried specimens are attached using glue to manila paper and then sewn using corn thread (Susanti, 2017: 10). For flower organs, fruit, seeds and rhizomes, preserve them by storing them in a specimen bottle containing 70% alcohol. All specimens were then classified and identified using the reference books Hidayat and Napitupulu (2015), Badrunasar and Santoso (2017), Kinho, et al (2011), Bermawie, et al (2020), Baihaqi, et al (2017, Noor and Asih (2018) , Fitmawati, et al (2016) and Kusumanegara, et al (2020) on the label contains information on the plant classification, local name of the plant, collector, time and place of research. After that the specimen is put in a glass frame to be used as a herbarium sample at the collection site.

## RESULTS AND DISCUSSION

Based on the results of interviews conducted from March to June 2022 with the community in Serombou Indah Village, medicinal plants were obtained, namely 22 families consisting of 27 plant species which were used as medicine by the Malay community in Serombou Indah Village as traditional medicine.

**Table 1.** Medicinal plant species found at the research location

| *Spesies* | *Famili* | *Nama Lokal* | *Organ yang digunakan* | *Cara penggunaan* | *Kegunaan* |
|---|---|---|---|---|---|
| *Justicia gendarussa* | Acanthaceae | Sugigi | Daun | Dipanaskan Ditempel | Demam |
| *Acorus calamus* | Acoraceae | Jerangau | Rimpang | Dikunyah Ditempel | Demam |
| *Hippeastrum puniceum* | Amaryllidaceae | Bakung | Daun | Dipanaskan Ditempel | Terkilir |
| *Centella asiatica* | Apiceae | Pegagu | Seluruh bagian | Ditumbuk Ditempel | Sakit perut |
| *Calotropis gigantea* | Apocynaceae | Kukupak | Daun | Dipanaskan Ditempel | Demam |
| *Blumea balsamifera* | Asteraceae | Capu | Daun | Diremas Ditempel | Demam |
| *Gynura procumbens* | | Sambung Nyawo | Daun | Direbus Diminum | Hipertensi |
| *Ananas comosus* | Bromeliaceae | Nenas | Daun | Ditumbuk Ditempel | Sakit perut |
| *Hippobroma longiflora* | Campanulaceae | Bungu Katarak | Bunga | Ditetes | Sakit mata |
| *Kalanchoe pinnata* | Crassulaceae | Didingin | Daun | Ditumbuk Ditempel | Sakit kepala |
| *Jatropha curcas* | Euphorbiaceae | Kelikie Jarak | Daun | Di panaskan Ditempel | Demam Masuk angin |
| *Cassea alata.* | Fabaceae | Gelinggang | Daun | Diremas Dioles | Kurap Panu |
| *Eleutherinae bulbosa* | Iridaceae | Bawang Dayak | Umbi | Direbus Diminum | Demam |
| *Orthosiphon aristatus* | Lamiaceae | Kumis Kucing | Daun | Direbus Diminum | Hipertensi |
| *Hibiscus rosa-sinensis* | Malvaceae | Bungu Raju | Daun | Di remas Diusap | Demam |
| *Cyclea barbata* | Menispermaceae | Aka Sekahang | Daun | Diremas Diusap | Demam |
| *Syzygium polianthum* | Myrtaceae | Sekayu | Daun | Direbus Diminum | Asam urat Maag |
| *Avverhoa bilimbi* | Oxalidaceae | Belimbing | Daun | Direbus Diminum | Hipertensi |
| *Pandanus amaryllifolius* | Pandanaceae | Pandan Wangi | Daun | Direbus Diminum | Maag |

| | | | | | |
|---|---|---|---|---|---|
| *Piper betle* | Piperaceae | Sirih | Daun | Direbus Diusap Digulung | Sakit mata Mimisan |
| *Peperomia pellucida* | | Sirih Cino | Seluruh bagian | Direbus Diminum | Asam urat Maag |
| *Cymbopogon citratus* | Poaceae | Sorai | Batang | Direbus Diminum | Masuk angin |
| *Morraya koenigi* | Rutaceaa | Secerek | Daun | Direbus Diminum | Asam urat Maag |
| *Curcuma domestica* | Zingeberaceae | Kunyik | Rimpang dan Daun | Diparut diminum Direbus Diminum | Asam urat Maag |
| *Zingiber purpureum* | | Kunyik Bolai | Rimpang | Dikunyah Ditempel | Masuk angin Demam |
| *Zingiber officianale* Var rubrum | | Jahe Merah | Rimpang | Direbus Diminum | Masuk angin |
| *Alpinia galanga* | | Lengkueh | Rimpang | Dipotong Dioles | Panu |

From table 1, based on the results of research and identification, 27 plant species were obtained, namely: Justicia gendarussa, Acorus calamus, Hippeastrum puniceum, Centella asiatica, Calotropis gigantea, Blumea balsamifera, Gynura procumbens, Ananas comosus, Hippobroma longiflora, Kalanchoe pinnata, Jatropha curcas, Cassia alata, Eleutherinae bulbosa, Orthosiphon aristatus, Hibiscus rosasinensis, Cyclea barbata, Syzygium polianthum, Avverhoa bilimbi, Pandanus amaryllifolius, Piper betle, Peperomia pellucida, Cymbopogon citratus, Morraya koenigi, Zingiber officianale Var Rubrum, Curcuma domestica, Zingiber purpureum and Alpinia galanga. The plant species found in Serombou Indah Village can be said to be fewer when compared to other similar studies. Where in research by Safitri, et al (2015: 2) found 38 species of medicinal plants in the Rambah Samo District community. Meanwhile, research by Aeni, et al (2016: 2) found 29 species of medicinal plants in the community in Kunto Darussalam District.

Differences in the results obtained can be caused by several factors, including: (1) differences in knowledge between one local community and another regarding the plants used, thus influencing the types of plants obtained; (2) the biodiversity of one area from another and the different ways of using medicinal plants in a community in that area. Apart from that, there are many factors that influence differences in the results obtained, such as tradition, culture, ethnicity and natural resources. (Canda, 2018: 7).

Of the various medicinal plants found in the community in Serombou Indah Village, the parts of the plant organs used in medicine include leaves, stems, tubers, flowers and all parts.

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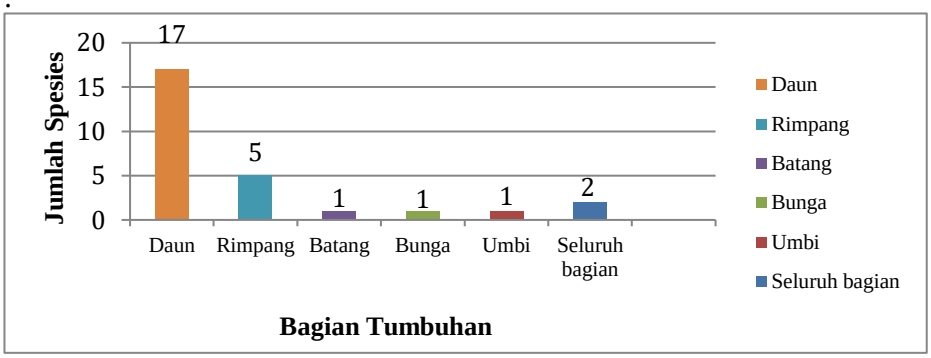


**Figure 1**. Diagram of plant organs used in traditional medicine

In research, the parts of plant organs used by the community in Serombou Indah Village as medicine consisted of leaves of 17 species, rhizomes of 5 species, stems, flowers and tubers of 1 species and all parts of 2 species. Based on the diagram above regarding the parts of the plant that are used as medicinal ingredients, it can be seen that the people of Serombou Indah Village mostly use the leaves as traditional medicine. This is because the leaves are easy to get, easy to mix and there are more of them than the other parts. Also because the use of leaf parts does not damage the condition of the plant and the leaves can grow back quickly. Apart from that, it is easier to take, and the processing is also relatively easy, namely by boiling, kneading, pounding, rubbing, coating, grating, and even eating directly. Processing of organ parts from several plant species found in Serombou Indah Village.

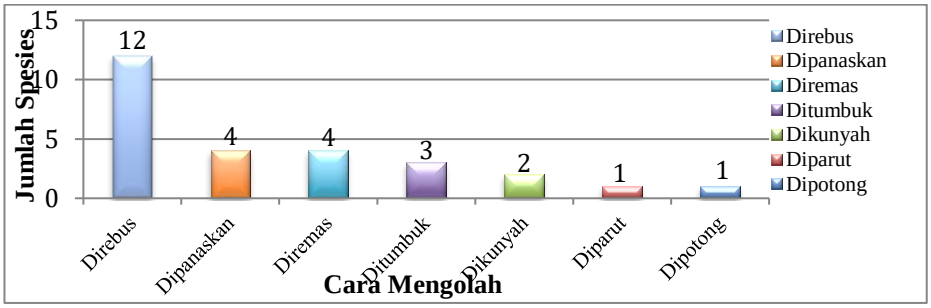


**Figure 2.** Diagram of how to process traditional medicinal plants.

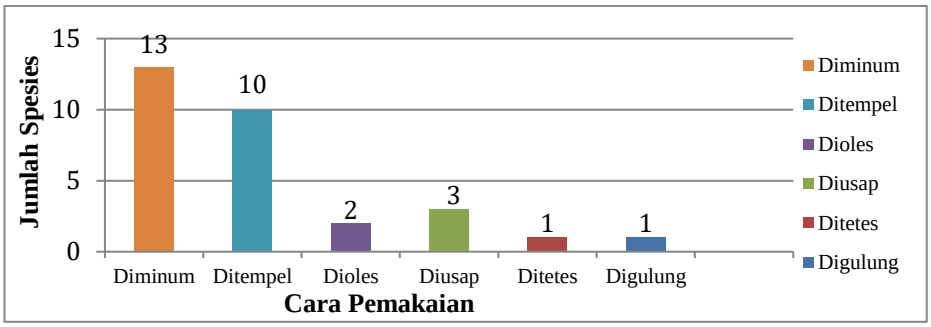


**Figure 3.** Diagram of how to use traditional medicinal plants

Of the various medicinal plants found in the people of Serombou Indah Village, the way to process or mix plants is in a simple way, which has been passed down from generation to generation from their ancestors. In the diagram above the use of plants as medicines used by Malay tribal people as medicinal ingredients, of course there are similarities and differences in how plants are used depending on each type. The differences in how each medicinal plant is used depend on the form of the plant and the disease to be cured. This aims to ensure that the substances contained in each medicinal plant can be released and function in healing quickly. There are six ways of using traditional medicine by the people of Serombou Indah, namely rubbing, dripping, rolling, drinking, smearing and sticking.

Based on the results of interviews with the people of Serombou Indah Village, it was found that plants have the potential to be used as medicine, consisting of 27 species grouped into 22 families. Several types of diseases that are cured using traditional plants are:

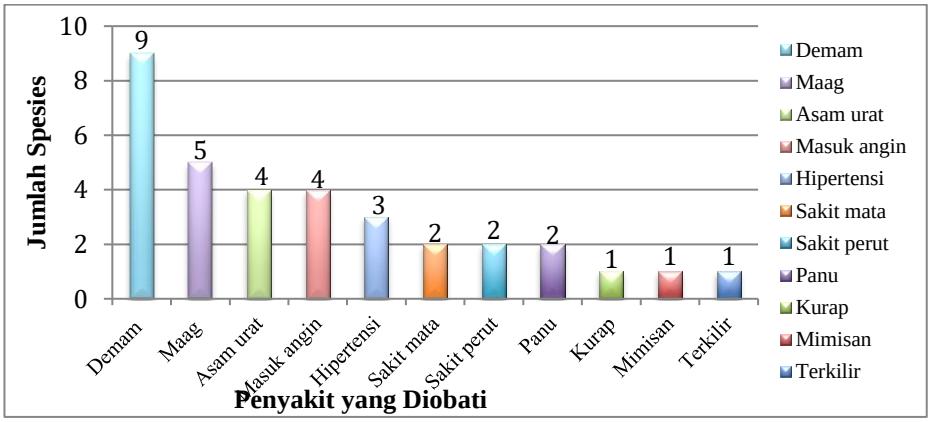


**Figure 4.** Diagram of diseases that can be treated with medicinal plants

It can be seen from the diagram above that the plants used to treat types of disease by the people in Serombou Indah Village are fever, the plants that can be used to treat fever are 9 species, 5 species for ulcers, 4 species for gout, 4 species for colds, 3 species for hypertension, 2 species of eye pain, 2 species of stomach ache, 2 species of tinea versicolor, ringworm, nosebleeds and sprains 1 species.

## CONCLUSION

Based on the research results, it was found that the medicinal plants used in Serombou Indah Village consist of 22 families and 27 species, namely Justicia gendrarussa, Ananas comosus, Hippeastrum puniceum, Blumea balsamifera, Gynura procumbens, Kalanchoe pinnata, Cassea alata, Pandanus amaryllifolius, Orthosiphon aristatus, Cyclea barbata, Hibiscus Rosasinensis, Syzygium Polyanthum, Avverhoa Bilimbi, Piper Betle, Murraya Koenigii, Calotropis Gigantean, Jatropha Curcas, Curcuma Domestica, Zingiber Officinale var Rubrum, Zingiber Purpureum, Acorus Calamus, Alpinia Galanga, Eleutherine, Cent Ella Asiatica, Peperomia Pellucida, Isotoma Longiflora and Cymbopogon citratus. The most widely used plant parts are leaves of 17 species, rhizomes of 5 species, flowers of 1 species, tubers of 1 species, stems of 1 species and all parts of 2 species. The processing of plants as medicine is still relatively simple, such as boiling, heating, kneading, chewing, grating, pounding and cutting. How to use these plants is by drinking, sticking, wiping, smearing, rolling and dripping. Diseases that are often treated are fever, gout, ulcers. , hypertension, colds, sprains, eye pain, stomach ache, tinea versicolor nosebleeds and ringworm.

## ACKNOWLEDGEMENT

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