

Ethnobotany of Medicinal Plants in the Wasilomata Cluster Community, Mawasangka District, Central Buton Regency, Southeast Sulawesi Province

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Abstract

Ethnobotany is a botanical science that studies the use of plants in everyday life which are used by certain ethnicities or tribes, and are passed down from generation to generation. The aim of this research is to determine the types and parts of medicinal plants used as well as how to process and utilize medicinal plants in the Wasilomata grove community, Mawasangka District, Central Buotn Regency, Southeast Sulawesi Province. This research is a qualitative descriptive research using several methods, namely observation, interviews, documentation, plant identification. The interview method was carried out using purposive sampling technique. The subjects in this research were youth leaders, traditional leaders, community leaders and healers. The results of the interview stated that there are 50 types of medicinal plants that are often used in the Wasilomata Grove. The parts of plants used as medicine are leaves, stems, fruit, roots, rhizomes, seeds and tubers. The way to process plants as medicine is boiling, pounding, squeezing, grating and splitting. Meanwhile, its users can treat 19 diseases, namely external wounds, high blood pressure, fever, cholesterol, coughs, boils, malaria, diarrhea, eye pain, serampa, burns, itching, toothache, poisoning, kidney stones, gout, acne, rheumatism and diabetes. It was concluded that there are 50 species of medicinal plants. The part of the plant most widely used as medicine is the leaves (70%). The most widely used method of processing plants as medicine is by boiling (46%) and the use of plants that are mostly used to treat external wounds (20%).

Keywords: Ethnobotany, Medicinal Plants, Wasilomata Cluster

Introduction

Ethnobotany is a botanical science that studies the use of plants in everyday life which are used by certain ethnicities or tribes, and are passed down from generation to generation. These include medicines, foodstuffs, traditional ceremonies and others (Leoanardo et al., 2013).

Medicinal plants are the use of the biodiversity that exists around us, both cultivated plants and wild plants. Since our ancestors, plants have been used as traditional medicines that contain active substances that are beneficial for health as a cure for disease. It should be remembered that the cost of treatment cannot be afforded by everyone, so medicinal plants are an affordable alternative for the community (Dewantari et al., 2018).



Indonesia has very high biodiversity because it has extensive tropical forests where there are various types of cultivated plants amounting to 26% and wild plants in the forest amounting to 74% which is estimated to reach 143 million hectares (Fahrurrozi, 2014). Southeast Sulawesi has sufficient biodiversity potential to be used as a medicinal plant which is spread throughout the Southeast Sulawesi Province (Dewi and Karya, 2018). In Central Buton Regency there is the Wasilomata Grove which has high biodiversity, which has not been officially recorded by the relevant Department of Central Buton Regency.

The Wasilomata family is a knot of fraternal bonds that are institutionalized in traditional harmony which consists of several villages, namely Matara Village, Wasilomata Village 1, Wasilomata Village 2, Oengkolaki Village, Napa Village, Wakambangura 2, Wakambangura Village 1 and Kancebungu Village which are located in Mawasangka District, Central Buton Regency. The people in these five locations originally came from and resided in Wasilomata, only because before the birth of several of these villages the area was still a place used for farming, so they established themselves in that place and established kinship relationships with each Village Head who which comes from Wasilomata. The people of the Wasilomata Cluster mostly make their living as farmers so they have a diversity of plants, especially medicinal plants.

The people in the Wasilomata Cluster area use a lot of plants, this is because their cultural traditions are still very strong and are still maintained today, then they use traditional medicines which are easily available in the surrounding environment and have minimal side effects. Apart from that, the price of chemical drugs is relatively expensive for most of the Wasilomata community and their use for a long time causes side effects on non-organs target.

Literature Review

The great trust of the Wasilomata community in traditional medicine causes the community to prefer to use traditional medicine rather than medical treatment that involves health services. According to Auliani et al., (2014) health services in Indonesia have developed, but public interest in using traditional medicine remains high. This is supported by research (Utami et al., 2019) Ethnobotany of Medicinal Plants in Surrounding Communities on Mount Ungaran, Central Java which states that most of the plants are used by the community as medicinal plants.

The use of types of medicinal plants by the Wasilomata Cluster community has been carried out for generations but has not been officially recorded by the local government and has not been scientifically documented so that researchers are interested in conducting research on the Ethnobotany of Medicinal Plants in the Cluster Community Wasilomata, Mawasangka District, Central Buton Regency, Southeast Sulawesi Province.

Research Method

This research is a qualitative descriptive research using several methods, namely observation, interviews, documentation, plant identification. The sampling technique uses purposive sampling technique. Purposive sampling is a technique for sampling data sources with certain considerations as representative so as to produce a logical sample (Sugiyono, 2020). The subjects in this research are youth leaders, traditional leaders, community leaders and healers (bhisa) who know the types of medicinal plants, the parts of plant organs used, their use and processing and their properties. Meanwhile, the objects of this research are all plants that are used as medicine in the Wasilomata Rumpun community, Mawasangka District, Central Buton Regency. Data collection techniques are strategic steps used by researchers who aim to obtain data in research (Sugiyono, 2018). The data collection techniques are: 1). Observation is the first step before conducting research which aims to obtain information and descriptions regarding data on types of medicinal plants, parts

of plant organs used, methods of processing and use as medicine and their properties, at the location that I observed in the Wasilomata Cluster area. 2). Interview: The interview guide used is only an outline of the problems that will be asked about, namely types of medicinal plants, parts of plant organs used as medicine, methods of utilization and processing and its benefits.



The interviews in this research were structured interviews. Structured interviews are a systematic procedure for exploring respondents under conditions where a set of questions are asked in an order prepared by the interviewer. 3). Documentation: the documentation system in interviews uses a voice recorder (audio) when the informant conveys information related to medicinal plants. Other documentation uses digital/cellphone photos. 4). Plant identification is done by cross-checking with various books or literature. including plant morphology, namely scientific name, Indonesian name, local name, habitus, plant parts used, how to use and process them and their properties. Next, identify the scientific name that refers to (Slamet and Hafidhawati, 2018). 5). Data analysis was carried out by describing the types of medicinal plants, the parts used, how to use and process them and their properties. The data will be presented in table form by attaching photos of the documentation of the types of medicinal plants found.











Results and Discussion








A. Types of medicinal plants and the parts used as well as how they are processed and utilized











Based on the results of research in the Wasilomata Cluster, Mawasangka District Central Buton Regency is known to have found 50 types of plants belonging to 42 families, namely the Annonaceae family (2 species), Caricaceae, Moraceae (3 spesies), Euphorbiaceae, Combretaceae, Liliceae, Myrtaceae, Poaceae, Verbenaceae, Asteraceae, Rubiaceae, Piperaceae (2 spesies), Moringaceae, Compositae, Moringaceae, Oxalidaceae, Zingiberaceae (2 spesies), Anacardiaceae, Arecaceae, Malvaceae (2 spesies), Crassulaceae, Solanaceae, Fabaceae, Acanthaceae, Cucurbitaceae, Rutaceae, Cucurbitaceae, Lamiaceae (2 spesies), Moraceae, Menispermaceae, Pandanaceae, Solanaceae, Euphorbiaceae (3 spesies) Graminae, Convolvulaceae, Urticaceae, Euhorbiaceae, Tiliaceae, Fabaceae, Verbenaceae, Amaryllidaceae, Papilionaceae dan can be seen in table 1 below:











Table 1 Types of medicinal plants and the parts used as well as how they are processed and utilized by the people of Rumpun Wasilomata, Mawasangka District, Central Buton Regency











No.	Plant Names		Area	The part of the Organ that is used	Habitus	How to Process And use	Benefits	Gambar
	Indonesia	Latin						
1.	Soursop	<i>Annona muricata</i> L.	Sikaaya	Leaf	Tree	The leaves are boiled until boiling, then cooled and drunk	Treating blood Pressure High and feverish	
2.	Srikaya	<i>Annona Squamosa</i> L.	Learn Kakumbu	Leaf	Tree	The leaves are squeezed with cold water and then drunk	Treating fever	


3.	Pawpaw	<i>Carica papaya</i> L.	Capaya	Leaf	Lost	The leaves are boiled until boiling, then let stand until cold, then drink	Treating malaria	
4.	Nangka	<i>Artocarpus heterophyllus</i>	Tiwada	Leaf	Tree	The leaves are boiled until they boil	Treating fever	
5.	Jarak pagar	<i>Jatropha curcas</i> L.	Ntanga-ntanga	Leaf	Lost	Leaves on the stem are cut open and then dropped on the part where the tooth hurts. The leaves are boiled until boiling, then cooled and drunk.	Treating toothache Treating serampa	
6.	Red Onion	<i>Allium cepa</i>	Bawa kadea	Tubers	Bush	Grate the onion until smooth, then apply it to the wound	Treat external wounds	
7.	Guava seeds	<i>Psidium guajava</i>	Bulamalaka	Leaf	Tree	The leaves are boiled Until boiling, then let stand until cold, then drink	Treats diarrhea and coughs	
8.	Serai	<i>Cymbopogon citrates</i>	Padamalala	Stem	Herbs	The stems are boiled until boiling, then let stand until cold, then drink	Treating cholesterol	
9.	Tembelekan	<i>Lantana camara</i>	Kambea kakuni	Leaf	Bush	The leaves are crushed until smooth, then the water is taken and dripped on the wound area. The leaves are boiled until boiling	Treat external wounds Treating pressure High blood pressure	
10.	Kirinyuh	<i>Eupatorium odoratum</i>	Komba-komba	Leaf	Bush	The leaves are pounded Until Smooth then taken aunya then Dripped on the wound area	Treat external wounds	
11.	Noni	<i>Morinda citrifolia</i> L.	Bangkudu	Fruit	Tree	The fruit is boiled until Boiling Then cool it and drink it	Treating pressure High blood pressure	
12.	Chinese betel	<i>Peperomia pellucida</i> L.	Kakambose	Roots, stems, leaves	Herba	Root herbs, stems, Boiled leaves studying Later Cool then drink	Treating holestrol And high blood pressure	

13.	Moringa	<i>Moringa aleifera</i> L.	Kaudawa	Stems and roots	Tree	The leaves are Pounded until Finely then dripped on the Part the wound the roots are boiled until they boil Then cool it and drink it	Treat external wounds Treating diarrhea	
14.	Disclaimer	<i>Ficus Séptica</i>	Libo	Leaves and stems	Tree	The leaves are crushed Quite Coarsely and then Placedon The fever área the steams are Scraped until smooth, then Dropped into the eyes	Treating fever Treating eye pain	
15.	Beluntas	<i>Pluchea indica</i> L.	Buntasi	Leaf	Bush	The leaves are boiled Until Boiling,then cooled and then Cleanse the eyes with the boiled water	Treating high Blood pressure	
16.	Green betel	<i>Piper betle</i> L.	Gili	Leaf	Herbs	The leaves are boiled until boiling, then cooled and then cleanse The eyes with the boiled wáter.	Treating eye pain	
						The leaves are boiled until Boiling, then cooled and then drunk	Treating stones	
17.	Patikan kebo	<i>Euphorbia hirta</i> L.	Kakono konau	Leaf	Bush	The leaves of the Bush are pounded until they are fine, then the wáter is dripped on the wound	Treat external wounds	
18.	Starfruit	<i>Averrhoa blimbi</i> L.	Dahu	Leaf	Tree	The tree leaves are boiled Until boiling, then cooled and then drunk	Treating high blood pressure	
19.	Turmeric	<i>Curcurma domestica</i>	Kuni	Rhizome	Bush	The rhizome is grated Until Fine and then dripped onto The wound area	Treat external wounds	

20.	Javanese wood	<i>Lannea coromandelica</i>	Saudawa	Stems	Tree	The tree trunk is scraped Until smooth, then squeezed and Placed on the wound	Treat external wounds	
21.	Ketapang	<i>Terminalia catappa</i> L.	Ka ai-ai	Stems	Tree	The stems are boiled Until boiling, Then cooled and drunk	Treating high blood pressure	
22.	Coconut	<i>Cocos nucifera</i> L.	Ai	Fruit	Tree	The fruit is picked and then picked and drunk	Treating poisoning	
23.	Cottonwood	<i>Ceiba pentandra</i> L.	Kapalele	Leaf	Tree	The leaves are squeezed In Wáter, then filtered and drunk	Treating fever	
24.	Cocor duck	<i>Kalancheo pinnata</i> L.	Kamuhindi	Leaf	Tree	The leaves are coarsely Ground and then placed on the hot area	Treating fever	
25.	Tomato	<i>Lycopersicon esculentum</i> L.	Tamate	Leaf	Herbs	The leaves are squeezed in Cold wáter, then filtered and drunk	Treating fever	
26.	Asam jawa	<i>Tamarindus indica</i> L.	Sampalu	Fruit	Tree	The fruit is pounded Until Smooth and then placed on the boil	Treating boils	
27.	Sambiloto	<i>Andrographis paniculata</i> Ness	Samburoto	Leaf	Herbs	The leaves are boiled Until Boiling, then cooled and then simmered	Treating malaria	
28.	Kundur	<i>Benincasa hispida</i> . Thunb	Kunduhu	Fruit	Herbs	The fruit is grated then the Wáter is taken, filtered and Then soaked	Treating fever	
29.	Jeruk nipis	<i>Citrus aurantifolia</i> S.	Munte	Fruit	Tree	The fruit is squeezed to Extract the wáter and Then drunk	Treating coughs	

30.	Pare	<i>Momordica charantia</i> L.	Pahia	Leaf	Herbs	The leaves are crushed Until Smooth and then placed or Dripped on the wound area	Treat external wounds	
31.	Kramis cat	<i>Orthosiphon aristatus</i>	Bulusupina beka	Leaf	Bush	The leaves are boiled Until Boiling, then shredded and Then dried	Treat gout and Kidney stones	
32.	Breadfruit	<i>Artocarpus altilis</i>	Kula	Leaf	Tree	The leaves are boiled Until Boiling, then cooled and drunk	Treating high blood pressure	
33.	Brotowali	<i>Tinospora crispa</i> L.	Martawali	Stems	Perdu	The stems are Boiled until boiling, then cooled And drank	Treating malaria	
34.	Fragrant pandan	<i>Pandanus amaryllifolius</i>	Ho kawoundu	Leaf	Tree	The leaves are boiled Until Boiling, then cooled and drank	Treating high blood pressure	
35.	Cayenne pepper	<i>Capsicum frutescent</i> L.	Sa a	Leaf	Perdu	The leaves are crushed Until Smooth and then the wáter is applied to the acne área	Treating acne	
36.	Alang-alang	<i>Imerata cylindrical</i> L.	Dana	Leaves and roots	Bush	The leaves are boiled Until Boiling, then cooled and drunk	Treating high blood pressure	
37.	Meniran	<i>Phyllanthus niruri</i> L.	Kasasampalu	Leaf	Bush	The leaves are crushed until smooth and then the wáter is dripped on the wound	Treat external wounds	
38.	Waru	<i>Hibiscus tiliaceus</i> L.	Bontu	Leaf	Tree	The leaves are crushed until smooth and then the wáter is dripped on the wound	Treat external wounds	
39.	Cassava	<i>Manihot esculenta</i> Crantz.	Landibou	Leaf	Perdu	The leaves are boiled Until boiling, then cooled and drunk	Treating rheumatism	

40.	Sweet potato	<i>Ipomoea batatas</i> L.	Kawiowi	Leaf	Herbs	The leaves are crushed Until smooth and then Placed on the boil	Treating boils	
41.	Nettle	<i>Urtica dioica</i> L.	Galano manu	Leaf	Herbs	The leaves are crushed Until smooth and then Placed on the boil	Treating boils	
42.	Basil	<i>Ocimum basilicum</i> L.	Kamangi	Leaf	Bush	The leaves are boiled Until boiling, then cooled and drunk	Treating fever	
43.	Anting-anting	<i>Acalypha indica</i> L.	Pomana mbuta	Leaf	Bush	The leaves are crushed Until smooth and then The wáter is dripped onto the wound	Treat external wounds	
44.	Ginger	<i>Zingiber officinale</i>	Laja	Rhizome	Herbs	The rhizomes are boile Until boiling, then Cooled and drunk	Treating cholestrol	
45.	Kersen	<i>Muntingia calabura</i> L.	Kerseni	Leaf	Tree	The leaves are boiled Until boiling, then cooled and drunk	Treating cholestrol	
46.	Kebiul	<i>Caesalpinia bonduc</i> L.	Kadaha-daha	Seeds	Bush	The sedes are roasted and then groun until smooth, mixed with waater and then drunk	Treating diabetes and Malaria	
47.	Horse whip	<i>Stachytarpheta jamaicensis</i> L.	Kahinsuli	Leaf	Perdu	The leaves are pounded Until smooth, then aruya is dropped On the wound	Treat external wounds	
48.	Aloe vera	<i>Aloe vera</i> L.	Lidah buaya	Leaf	Herbs	The leaves are peeled And the slimy flesh is removed and Then applied to the itchy área	Treating itching	
49.	White daffodil	<i>Crynum asiaticum</i> L.	Bala-bala	Leaf	Herbs	The leaves are crushed Until smooth and then the wáter is dripped onto the wound	Treat external wounds	

50.	Turi	Sesbania grandiflora L.	Kamba jawa	Stems	Tree	The stems are boiled Until boiling and Then cooled	Treating seranuph	
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B. Used Plant Parts

The parts of plants used as medicine are roots, stems, leaves, fruit, seeds, rhizomes and tubers. The parts of medicinal plants used in treatment can be seen in Figure 1.

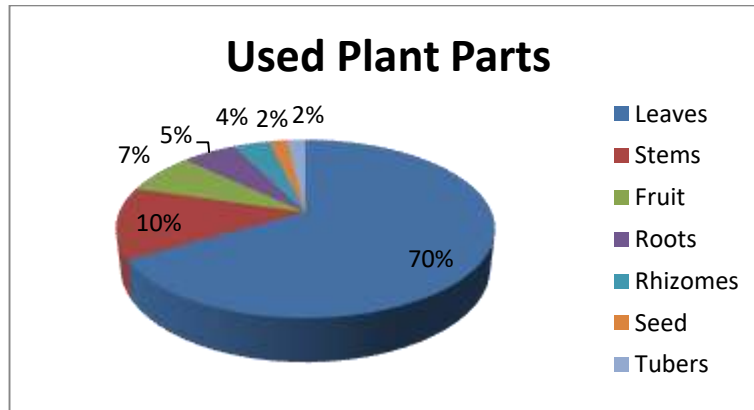


Figure 4.1 Diagram of plant parts used in medicine

Overall it can be said that the leaves are the most widely used part, namely (70%). Then stems (10%), fruit (7%), roots (5%), rhizomes (4%), seeds (2%) and tubers (2%).

C. Percentage Of Plant Processing Methods Used As Medicine

There are 5 ways to process medicinal plants used by the Wasilomata Village community, Mawasangka District, Central Buton Regency. The types of medicinal plant treatment can be seen in Figure 2.

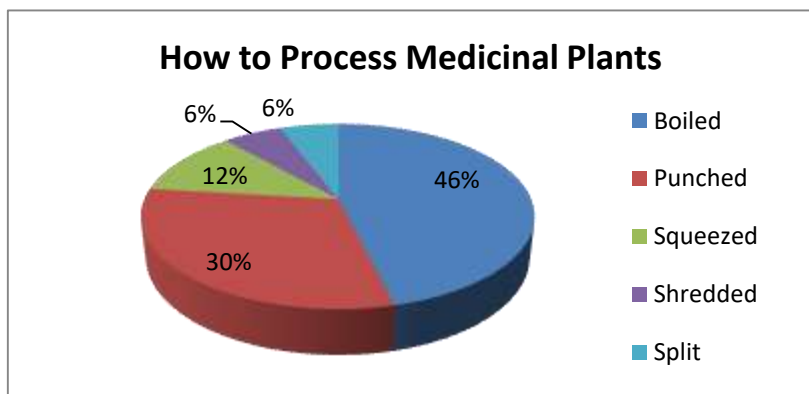


Figure 2 Diagram of types of medicinal plant processing

Processing medicinal plants by boiling is the method most widely used by the community, namely (46%), then pounding (30%), pressing (12%), grating (6%) and splitting (6%).

D. Percentage Of Plant Processing Methods That Are Used As Medicine

The use of medicinal plants used by the Wasilomata Rumpun community, Mawasangka District, Central Buton Regency, can cure 19 types of diseases. The types of disease can be seen in Figure 3.

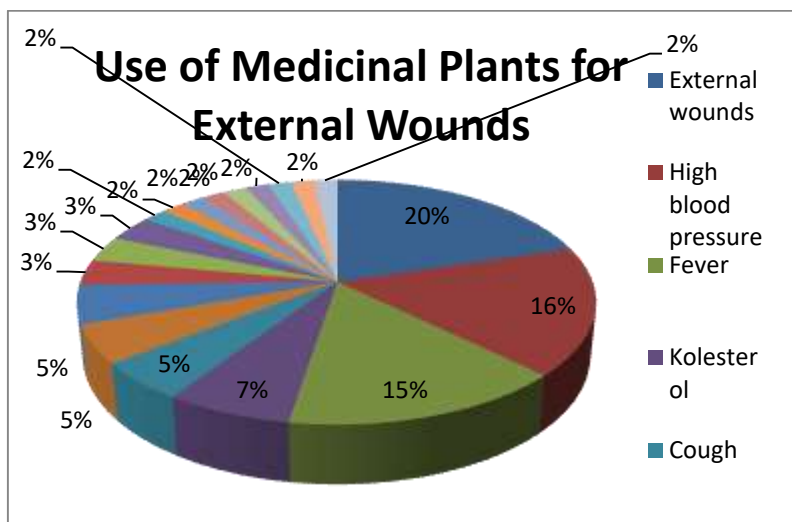


Figure 3: Diagram of the Use of Medicinal Plants

The use of medicinal plants that can cure external wounds is the most widely used healing, namely (20%), high blood pressure (16%), fever (15%), cholesterol (7%), cough (5%), boils (5%), malaria (5%), diarrhea (3%), eye pain (3%), serampa (3%), burns (2%), itching (2%), toothache (2%), poisoning (2%), kidney stones (2%), gout (2%), acne (2%), rheumatism (2%) and diabetes (2%).

(Times New Roman 11) The research results and the comprehensive discussion are deeply and clearly presented. Results can be presented in figures, graphs, tables and others that make the reader understand easily. The discussion must be clearly and deeply conducted. The discussion can be made in several sub-chapters.

Conclusion

Based on research results, there are 50 types of medicinal plants found in the Wasilomata Cluster, Mawasangka District, Central Buton Regency, and belong to 42 families. The most numerous family has species, namely the Moraceae family (3 species) and the Euphorbiaceae family (3 species). The part of the plant most widely used as medicine is the leaves (70%). The most widely used method of processing plants as medicine is by boiling (46%) and the use of plants that are mostly used to treat external wounds (20%).

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