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*“Conserving Sumatran Wildlife Heritage
for Sustainable Livelihood”*



Institute for Research and Community Service
University of Lampung

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“Conserving Sumatran Wildlife Heritage for Sustainable Livelihood”

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Person in charge:

Warsono, Ph.D.

Steering Committee:

Dr. Hartoyo, M.Si.

Organizing Committee:

Dr. Erdi Suroso, M.T.A.

Editors:

Dr. Endang Nurcahyani, M.Si.

Dr. Ir. Sumaryo Gs, M.Si.

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Research and Development Center of Environment

Institute for Research and Community Service

University of Lampung

Jl. Sumantri Brojonegoro No. 1, Bandar Lampung 35145

Phone: +62-721-705173, Fax. +621-721-773798

E-mail: lppm@kpa.unila.ac.id

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THE LOCAL KNOWLEDGE OF COASTAL ETHNIC COMMUNITIES OF PLANTS THAT EFFICACIOUS AS MEDICINE IN 5 DISTRICTS OF SOUTH LAMPUNG REGENCY

Arum Asterini, Yulianty, Tundjung Tripeni Handayani

Department of Biology, Faculty of Mathematic and Natural Science, University of Lampung

Corresponding author : arum1806@gmail.com

Department of Biology, Faculty of Mathematics and Natural Science, University of Lampung,
Prof. Dr. Sumantri Brojonegoro Street No.1, Bandar Lampung, Lampung, Indonesia, 35145, Telp.
(0721) 701609, Fax. (0721) 702767

ABSTRACT

This study aims to determine the diversity of medicinal plant species which is based on the knowledge of the ethnic communities of coastal South Lampung regency. This research was conducted in 5 districts of South Lampung regency, such as : District Rajabasa, District Kalianda, District Sidomulyo, District Penengahan, and District Katibung from March to May 2016. According to the results, 101 medicinal plant species are obtained from 43 families. Plant species that are widely used are from the family of Zingiberaceae, Euphorbiaceae, Poaceae and Asteraceae. The many types of diseases that are treated using by medicinal plants by the coastal ethnic communities in 5 districts of South Lampung regency are diabetes and high blood pressure. The Habitus which is widely used was herbs and the least was liana, whereas the most part that often used is leaf.

Keywords : Medicinal plant, South Lampung Regency, Coastal Ethnic

1. INTRODUCTION

Medicinal plants are all plants that are known to have good efficacy in helping maintain the health or treatment of a disease. Medicinal plants are very closely related to traditional medicine, because most effective use of medicinal plants has not been based on clinical laboratory testing, but based on experience (Yuni et al., 2011).

The utilization of medicinal plants in Indonesia has been growing rapidly. The role of medicinal plants can indeed be developed extensively in Indonesia. The role of plants as medicine is very important to know the community, to maintain their survival (Wardah and Setyowati, 2010).

A data and information about medicinal plants in 5 District of South Lampung regency has not been known. Therefore, there needs to be an effort to document the knowledge of traditional medicine, one way is through his documentation ethnobotany study of medicinal plants. Ethnobotany is an interdisciplinary branch of science, namely the study of human relationships, the plant with its surroundings. Ethnobotany as a study that explains the relationship between humans and plants thoroughly describe the role and functions of plants in a culture.

Ethnobotany of medicinal plants is one form of interaction between people and the natural environment. Interaction on each tribe has its own characteristics and depend on the characteristics of the region and the potential wealth of existing plants. Assessment ethnobotany medicinal plants according to specific tribes intended to document the resource potential of medicinal plants and is an effort to develop and preserve it (Hastuti, 2012). While data and information on the medicinal plants in 5 District of South Lampung regency largely unknown, it is very important to develop medicinal plant species native local area especially in South Lampung regency.

2. MATERIALS AND METHODS

This study was conducted in March 2016 until May 2016 took place in the District 5 (Rajabasa, Trump, Sidomulyo, Mediation, and Katibung) South Lampung regency. Tools and materials used, among others register of medicinal plants Indonesia, a questionnaire to the respondents, the camera's object of study documentation and materials for herbarium. The data collection is done by observation and interview methods. Selection of respondents was done by using purposive sampling determines the respondents based on their specific considerations (Arikunto, 2006). To get expert traditional healers (respondents) should be based on recommendations from the traditional leaders or local community leaders (Purwanto, 2007). The data obtained is calculated using the formula (Fakhrozi, 2009):

Percent of special habitus:

$$\frac{\sum \text{species of special habitus}}{\sum \text{all kinds}} \times 100\%$$

Percent of used part:

$$\frac{\sum \text{special part which is used}}{\sum \text{all part which is used}} \times 100\%$$

Percent of family which is used:

$$\frac{\sum \text{special kind of family}}{\text{Total of all kinds of family}} \times 100\%$$

Percent sum of disease :

$$\frac{\sum \text{special disease infected}}{\text{Total of infected disease}} \times 100\%$$

3. RESULTS AND DISCUSSION

Based on interviews and observations that have been made, obtained 101 medicinal plant species from 43 plant parts that are used in 5 Districts South Lampung regency in each village.

1. Parts of plants used

The number of plant species which are most widely used in the Zingiberaceae parts, can be seen in Figure 1.

Tribe of the plant most widely used is Zingiberaceae because these plant species are of the tribe is very familiar among the general public, such as ginger, turmeric, kencur, ginger, temu ireng, galangal and bangle. One of them is the kind kencur (*Kaempferia galanga*). Powder is a kind-finding meeting which is widely used as a traditional medicine. Chemical constituents of the rhizome kencur of which consists of saponins, flavonoids, polyphenols and essential oils consisting of (ethyl p-methoxycinnamate, isobutyl β -2-furilakrilat and hexyl format), derivate monoterpenes oxygenated (ex, borneol and camphor hydrate), as well as monoterpene hydrocarbons (ex. kamfen and terpinolen) (Sukari *et al.*, 2008). The content of secondary metabolites in kencur especially from the class of flavonoids and essential oils. Secondary metabolites produced by plants Zingiberaceae generally can inhibit the growth of pathogens that harm human life (Nursal *et al.*, 2006).

Potential plant located in South Lampung regency is still high to be used as a medicinal plant while the local traditional healers know only plants that are always used daily, due to traditional healers memory has been reduced, then some plant species can not be remembered. So that knowledge is not passed on to their family and loved ones.

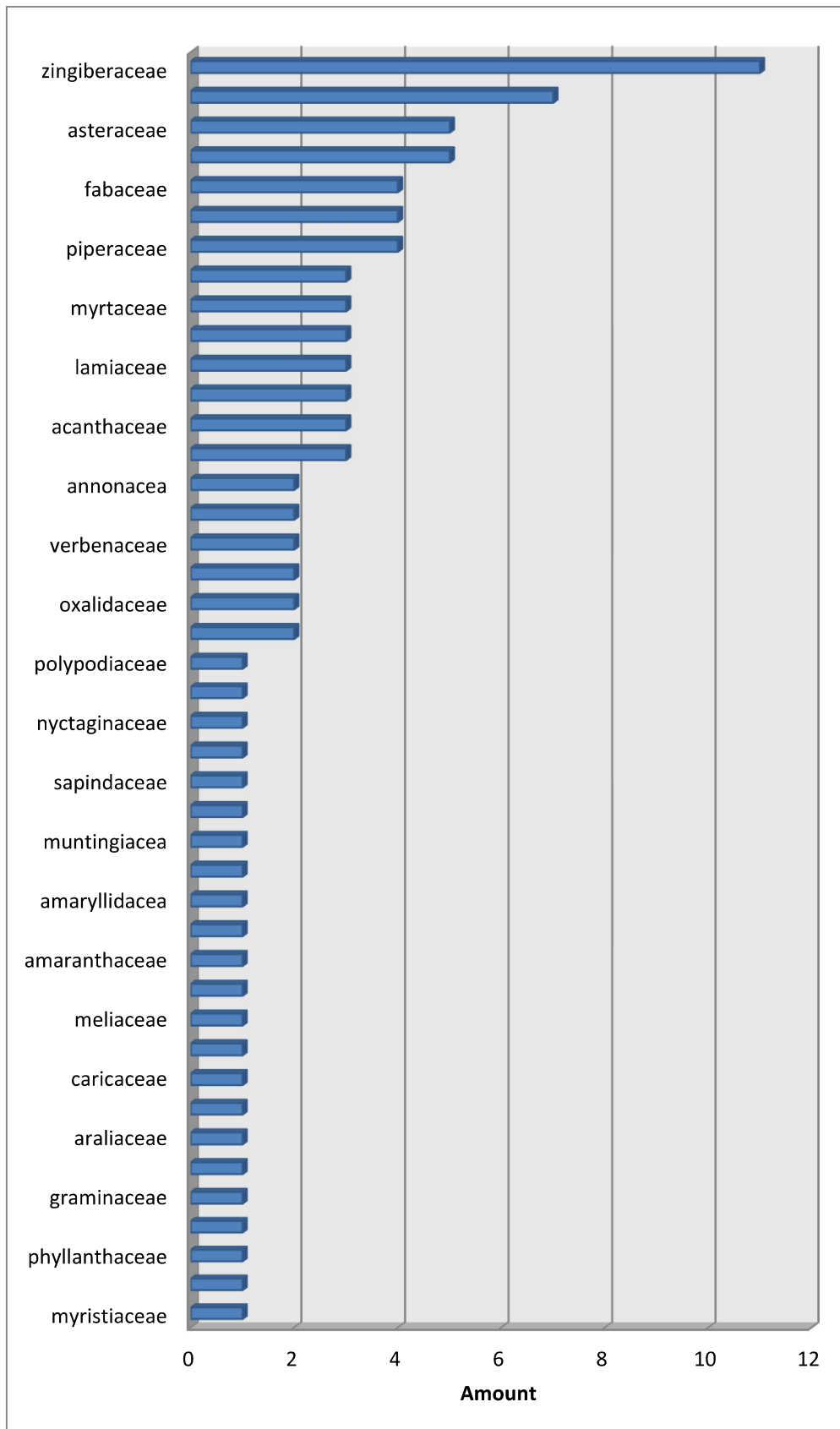


Figure 1. Graph of the percentage of plant parts used in the District of South Lampung District 5

2. Habitus is widely used

Based on the research results, habitus is the widely used herbs and the least was liana, can be seen in Table 2.

Table 2. Percentage of habitus which is widely used as a medicinal plant in South Lampung regency 5 Districts

No	Subdistric	Habitus (%)				
		Tree	Perdu	Semak	Herba	Liana
1	Rajabasa	21,42	14,28	14,28	50	0
2	Kalianda	17,85	32,14	14,28	32,14	3,57
3	Penengahan	8,69	13,04	21,73	52,17	4,34
4	Sidomulyo	30,43	0	8,69	56,52	4,34
5	Katibung	14,28	19,04	19,04	47,61	0

Total percentage habitus which is used can be seen in Figure 2..

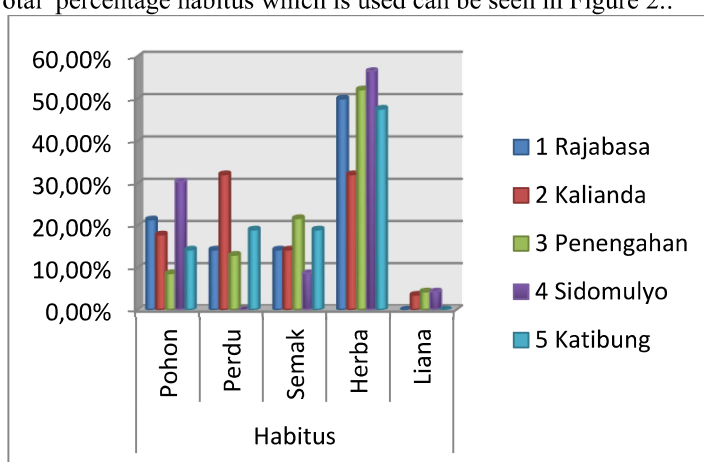


Figure 2. Graph of habitat is widely used as a medicinal plant in the 5th District of South Lampung regency

This is according to research Arizona (2011), at the level of herbaceous plants is a plant easily cultivated and does not require large tracts of land, enough to plant in the yard. One of herbaceous plants that are used are turmeric (*Curcuma xanthorrhiza*), ginger is thought to provide an antimicrobial effect for active ingredients such as essential oils. One element essential oil that is terpenoids which allegedly involves the breakdown of the membranes by lipophilic components. Other content is Phenol, suspected to be toxic to the bacteria through inhibition of the enzyme (Cowan, 1999). While habitus is little used by traditional healers in 5 District of South Lampung Regency is a liana. Liana is a plant vines, climbing or hanging. Plants including liana is green betel (*Piper betle* L.). According Kartasapoetra (1988), green betel also effective as a cough medicine, anti Septika and mouthwash owned betel leaf content in the form of essential oils, khavikol, estragol, eugenol, hidroksikavicol and karvacol. In addition there is also the use of red betel (*Piper crocatum* Fuiz. & Pav) that is trusted coastal ethnic communities can treat canker sores, bleeding gums, ulcers, and high blood pressure.

3. Part used

Part of the plant used in the form of roots, stems, leaves, flowers, fruits, seeds, rhizomes and sap. The most widely used are the leaves (Table 3).

Use of leaves as ingredients of medicines are considered as a way of processing more easily than the skin, stems and roots. The leaves also have high regeneration to re-sprout and had no impact on the growth of a plant even though the leaf is a point of photosynthesis (Fakhrozi, 2009). Plants that used the leaves by ethnic coastal District of South Lampung District 5 of them are bitter

(*Andrographis paniculata* Ness.), pegagan (*Centella asiatica* L.), waru (*Hibiscus macrophyllus* Roxb.), asoka (*Ixora palludosa* L.), sirih (*Piper betle* L.), jarak (*Jatropha curca* L.), daun dewa (*Gynura segetum* Lour.), meniran (*Phyllantus niruri* L.), salam (*Syzygium polyanthum*), bayam duri (*Amaranthus spinosus* L.), bakung (*Crynum asiaticum* L.), dll.

Table 3. Percentage of part of the plant used as a medicinal plant in South Lampung regency 5 Districts

No	Subdistric	Parts Used (%)							
		Root	Stem	Leaf	Flower	Fruits	Seed	Rhizome	Sap
1	Rajabasa	0	10,34	37,93	6,89	13,79	0	24,13	6,89
2	Kalianda	3,22	16,12	32,25	3,22	22,58	3,22	16,12	3,22
3	Penengahan	12,5	12,5	34,37	6,25	12,5	3,12	18,75	0
4	Sidomulyo	6,89	6,89	51,72	0	10,34	10,34	13,79	0
5	Katibung	18,18	0	40,90	4,54	22,72	4,54	9,09	0

Total percentage of parts used can be seen in Figure 4.

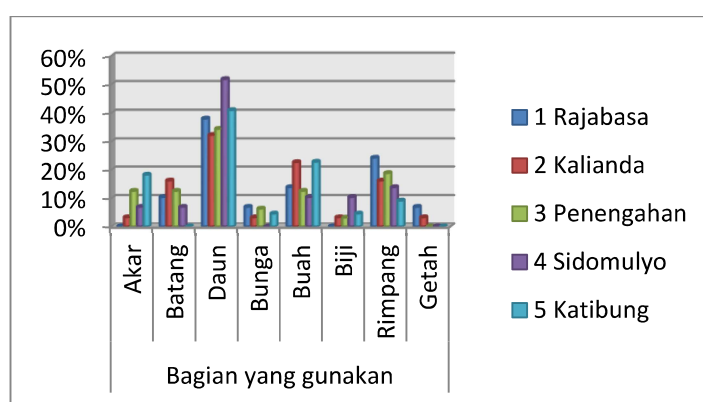


Figure 4. Graph part of the plant used as a medicinal plant in South Lampung regency 5 district

Not only certain parts of the plant are used as medicine by ethnic coast in South Lampung regency, but there are also herbs that are used all the parts to be mixed as drug among which meniran (*Phyllantus niruri* L.), urang-aring (*Eclipta alba*), sesuruhan (*Peperomia pellucida* L.), anting-anting (*Acalypha australis* L.), kembang coklat (*Zephyranthes candida*), dan sangketan (*Heliotropium indicum* L.).

4. This form of processing of medicinal plants

Ways of processing medicinal plants can be divided into two, namely, singular and mix. Processing in a single form can be boiled, shredded, smeared, pounded, eaten directly, as well as shed. Shape mixture of herbs that is a mixture of plants that one and the other with a certain dose to be traditional herb medicine. How to use an herb used in traditional medicine in the form of a medication inside, outside or inhaled. The use of in particular by drunk or eaten directly, treatment with boiled, mashed or grated. While the user from the outside by means of smeared, taped, used as a poultice, dripped or even as an ingredient for a shower. The use of traditional medicine in a way that is inhaled inhaled the scent of the herb through the nostrils.

4.CONCLUSIONS

Based on the research that has been done it was concluded as follows:

1. Found 101 species of plants from 43 tribes, one of the most widely is Zingiberaceae rate (25.58%) were used in 5 Districts South Lampung regency.
2. Habitus is the widely used herbs (47.68%) and the least was liana (2.45%).
3. Part of the plant most widely used are the leaves (39.43%) and the least is the sap (2.02%)
4. Type a disease that affects many in the 5th District of South Lampung regency is diabetes and hypertension.

Recommendations:

The need for further research to determine the bioactive components and traditionally using by traditional healers can be proven scientifically.

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