International Journal of Academic Research and Development
ISSN: 2455-4197
Impact Factor: RJIF 5.22
www.academicsjournal.com
Volume 3; Issue 3; May 2018; Page No. 267-273

Ethnobotany of plant food in Dayak tamambaloh community, west Kalimantan, Indonesia

Natalia Rike, Serafin Tanti Nita, Cornelius Sungkalang
Students of Biology Education, STKIP Persada Khatulistiwa Sintang, Indonesia

Abstract
Dayak Tamambaloh community has a customary land which is rich in biodiversity; one of them is plant food. Dayak Tamambaloh community has local wisdom in civilization. Their local wisdom is reflected on how they utilize local plants to meet their daily food needs. Therefore, the study of ethnobotany of plant food in Dayak Tamambaloh community needs to be done. This study aims to identify the diversity of plant food, plant parts used and the habitat of plant food that exist in customary land in Dayak Tamambaloh community. The research was conducted in Labian Ira'ang Village, Batang Lupar District, Kapuas Hulu Regency, West Kalimantan. Ethnobotany data was collected using interviews and field observations. Respondents in the interview activity were determined using the *snowball sampling* method. The number of respondents is 20 people who have an understanding about food plants. Data is analyzed by calculating the percentage of its family, the percentage of exploited part and the percentage of its habitat type. There are 95 species of plant of 44 families. The largest number of families is *Zingiberaceae* of 8.42%. The most widely used parts of plant are fruit of 71.58%. The most common habitat type of plant food is forests of 46.31%.

Keywords: ethnobotany, plant food, traditional knowledge, Dayak tamambaloh

1. Introduction

West Kalimantan with an area of 146,807 km^2 has a lot of biodiversity, one of which is potential food plant (Badan Pusat Statistik, 2012). The plant is used by people as food, traditional medicine and so on and generally spread in some areas in West Kalimantan. West Kalimantan is inhabited by various tribes, one of them is Dayak ethnic groups. Takoy *et al* (2013) [19] stated that the people who live in the forest are dominated by Dayak ethnic groups. Dayak indigenous people depend heavily on forest ecosystems. Forests are a source of food for Dayak indigenous people. If the forest is disturbed, their source of food will be disturbed too, consequently the hunt results and plant yields used by the Dayak indigenous people is reduced. Dayak indigenous people usually plant useful plants around their home yards. They picked up good plant seeds from the forest based on their experience and then use the plants as foodstuffs (Uluk *et al* ., 2001) [20].

In West Kalimantan Province, precisely in Kapuas Hulu Regency, Batang Lupar District, Labian Ira'ang Village, there are one of Dayak subgroups called Dayak Tamambaloh. Dayak Tamambaloh community has lived and settled from generation to generation in the customary land that has begun long time ago. Dayak Tamambaloh community has a customary land which is rich in biodiversity; one of them is plant food. By looking at the many potential of plant food in the customary land, the local community has a tradition in its processing. Nopandry (2007) [13] stated that traditionally, people have local wisdom that is the potential and strength in managing a forest area. This can be seen from their existence which is accompanied by the existence of forests for hundreds of years as a proof of civilization and potential forest conservation.

Dayak Tamambaloh community has a culture of local wisdom. Keraf (2002) [9] stated that local wisdom is all forms of knowledge, belief, understanding, or insight and customs or ethics that guide human behavior in life within the ecological community. Local wisdom is reflected in the custom of Dayak Tamambaloh community in utilizing local plants to meet their daily food needs. The knowledge of the utilization of local plants is obtained by the community through local knowledge from the inheritance of parents, relatives and so forth. However, these local wisdom values became extinct due to certain activities that can reduce the availability of food crops in the local forest.

Gunawan (2014) [6] identified that the development activities in forest areas potentially impact on biodiversity such as developments of roads, offices, ports, airports, large estates, smallholder farms, mining, dams, industrial estates (integrated economic development zones), urban settlements, irrigation networks, power lines and transmigration. These activities are feared to eliminate the biodiversity in an ecosystem so that the prevention efforts are needed to ensure that local forest potentials are preserved and local cultural values continue to grow within the community.

To prevent the loss of biodiversity and supporting the efforts of preserving toward plant food in Dayak Tamambaloh community is necessary to study on ethnobotany in Dayak Tamambaloh community. Ethnobotany is the study of the classification, use and management of plants by people, draws on a range of disciplines, including natural and social sciences, to show how conservation of plants and of local knowledge about them can be achieved (Martin, 1995) [18]. Soekarman & Riswan (1992) [18] stated that ethnobotany is the study of the direct relationship of human with plants in traditional utilization activities. Ethnobotany describes and explains the connection between the culture and usefulness of

plants, how plants are used, treated and judged to provide benefits to humans. Therefore, the study on ethnobotany of plant food in Dayak Tamambaloh community is very important. This study aims to identify the diversity of plant food, plant parts used and the habitat of plant food that exist in customary land in Dayak Tamambaloh community.

2. Methods

2.1 Time and Location

The study was conducted in May 2018. The research was conducted in Labian Ira'ang Village, Batang Lupar District, Kapuas Hulu Regency, West Kalimantan.

2.2 General Condition of Research Sites

Labian Ira'ang village is administratively included in Batang Lupar District, Kapuas Hulu Regency, West Kalimantan Province. The Labian Ira'ang village is bordered by Mensiau Village in the north, Setulang Village in the east, Abau River Village in the south; Labian Village in the west. Labian Ira'ang Village, Batang Lupar District, Kapuas Hulu Regency, West Kalimantan has an area about 2,370 Ha. The number of residents of Labian Ira'ang village is about 455 people with the 126 of head of household. That number consists of Bakul hamlet 219 people (62 head of household), Kereng Lunsa hamlet 195 people (51 head of household), Sembawang hamlet 43 people (13 head of household). There are 242 males and 213 females from the total number of villagers. Most of the lowlands are used for fields, vegetable plantations, settlements, and housing. The rest of the land is forest and set-aside land. The upland is used for natural rubber and fruit plantations. The map of the research area is presented in Figure 1.

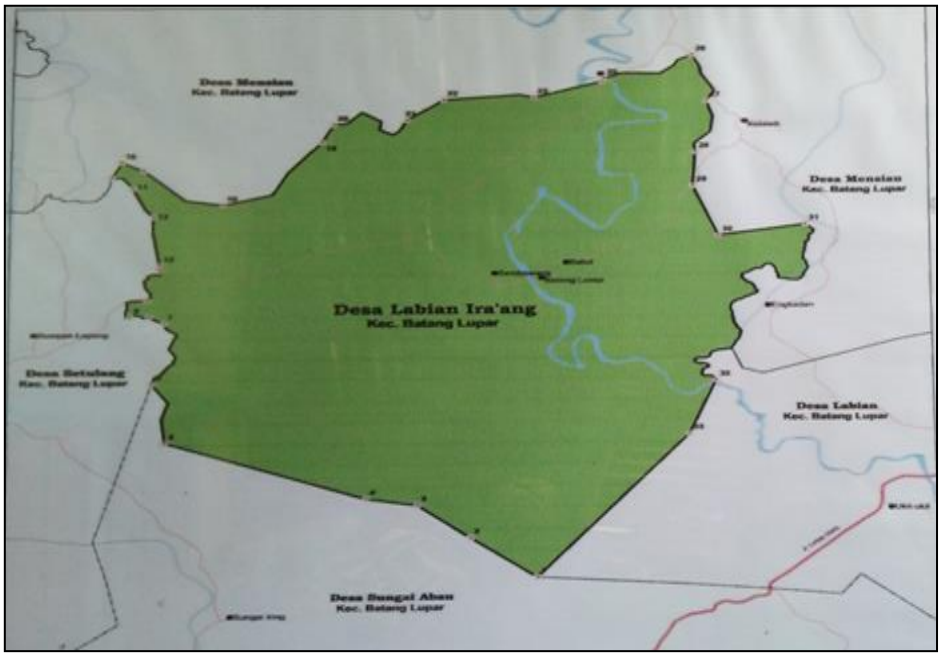

Fig 1: The Map of Research Area

2.3 Data Collection on Ethnobotany

2.3.1 Interview

Interviews were conducted to obtain data on the types of plants and to know their utilization by Dayak Tamambaloh community in Labian Ira'ang Village. Respondents in the interview activity were determined using the *snowball sampling* method; the selection technique of respondents based on key respondents is tribal leader. Information on the next respondents was obtained from previous respondent. The number of respondents in this study is 20 people. Interviews conducted are semi-structured interviews using questionnaires to know the community's knowledge about the types of plant food, plant parts used and the habitat of plant food.

2.3.2 Field Observation

Field observations were conducted to verify the types of plant food utilized by Dayak Tamambaloh community in Labian Ira'ang Village. This observation is done by observing the plant food used both the utilized part and its habitat.

2.4 Data analysis

2.4.1 The Percentage of Family

Plant food is grouped by family, then calculated percentage using the following formula:

$$\text{Specific percentage family} = \frac{\sum \text{spesies from specific plant family used}}{\sum \text{total number of spesies of all families}} \times 100\%$$

2.4.2 The Percentage of Using Parts

The percentage of parts of plant food used includes leaves, fruit, seeds, cabbage (*umbut*), stems, tubers and flowers. According Fakhrozi (2009), formula to calculate the percentage of plant parts used namely:

$$\text{Specific percentage parts} = \frac{\text{species of specific parts}}{\text{all species}} \times 100\%$$

2.4.3 The Percentage of Habitat Types

The percentage of plant habitat is related to the location of the discovery of potentially plant food such as forests, gardens,

fields, yard, river banks, and hills. To calculate the percentage of plant habitat can be used the following formula:

$$\text{Specific percentage habitat} = \frac{species\ of\ specific\ habita}{all\ species} \text{x } 100\%$$

3. Result

3.1 Diversity of Plant food

Plants identified based on interviews and field observations in Dayak Tamambaloh community were found in 95 species presented in Table 1.

Table 1: Diversity of plant food in Dayak Tamambaloh community of Labian Ira'ang Village

No	Plant Name			Plant Part	Habitat
	Local Name	Scientific Name	Family		
1.	Kakatup	*Broussontia papyrifera tree*	*Moraceae*	Young leaves, fruit	Hills
2.	Karam	*Ficus variegate*	*Moraceae*	Fruit	River beach
3.	Patikala	*Etlingera elatior*	*Zingiberaceae*	Cabbage, flower, fruit	River beach
4.	Karamungae	*Dilenia philippinensis*	*Dileniasae*	Young leaves	Hills
5.	Tugu paring	*Bambusa vulgaris schred*	*Gramineae*	Bud	Forest
6.	Tugu bulo	*Bambusa sp*	*Gramineae*	Bud	Forest
7.	Kalasi	*Passiflora foetida* L.	*Passifloraceae*	Young leaves, fruit	River beach
8.	Limudan	*Eugeissona utillis*	*Araceae*	Fruit	Forest
9.	Kapang	*Pangium edule Reinw*	*Flacourtiaceae*	Young leaves, fruit, seed	Forest
10.	Paku karu	*Polypodium verrucosum*	*Polypodiaceae*	Young stem, young leaves and shoots	River beach
11.	Sangkok	*Sauropus androgynous* L.	*Euphorbeaceae*	Leaves, fruit	Home yard
12.	Tuak	*Arenga pinnata*	*Arecaceae*	Palm cabbage, water	Home yard
13.	Tarung pipit	*Solanum torvum*	*Solanaceae*	Fruit	River beach
14.	Korok	*Colocasia esculenta* L.	*Araceae*	Tendrils, stem, young leaves, yam	River beach
15.	Kakas	*Stenochlaena palustris*	*Blechnaceae*	Young leaves	Forest
16.	Unti	*Musa paradisiacal*	*Musaceae*	cabbage, fruit, banana blossom	Home yard
17.	Tamparenget	*Aquilegia vulgaris* L.	*Ranunculaceae*	Fruit	Hills
18.	Mangkudu	*Morinda citrifolia* L.	*Rubiaceae*	Young leaves, fruit	Home yard
19.	Upa Lalis	*Plectocomiopsis geminiflora*	*Araceae*	Cabbage	Forest
20.	Barangan	*Castanea sativa*	*Fagaceae*	Fruit	Forest
21.	Ara	*Ficus fistulosa*	*Moraceae*	Young leaves, fruit	River beach
22.	Rambean	*Beccaurea montleyana*	*Euphorbiaceae*	Fruit	Forest
23.	Timadak	*Artocarpus integer*	*Moraceae*	fruit, seed	Forest
24.	Paku baruang	*Blechnum orintale* L.	*Polypodiaceae*	Young stem, young leaves and shoots	Forest
25.	Jangkang	*Horntedtia scottiana*	*Zingiberaceae*	Fruit	Hills
26.	Ambulung	*Metroxylon sagu*	*Palmae*	Cabbage, fruit, quintessence	Forest
27.	Ubi	*Manihot esculenta*	*Euphorbiaceae*	Leaves, tuber	Forest
28.	Sialam	*Garcinia mangostana* L.	*Clusiaceae*	Fruit	Forest
29.	Antimun balao	*Gymnopetalum cocinense*	*Cucurbitaceae*	Fruit, leaves	Forest
30.	Kundur	*Artocarpus camansi*	*Moraceae*	Fruit, seed	Forest
31.	Takalong	*Artocarpus sericicarpus*	*Moraceae*	Fruit, seed	Forest
32.	Tabu	*Saccharum officinarum* L.	*Poaceae*	Stem	Home yard
33.	Maram	*Eleiodoxa conferta*	*Arecaceae*	fruit	Forest
34.	Embang-embang	*Curculigo orchioides Gaertn*	*Liliaceae*	Fruit	Forest
35.	Maya'	*Ipomoea batatas*	*Convolvulaceae*	Young leaves, fruit	River beach
36.	Bawang lamba	*Eleutherine bulbosa/americana*	*Iridaceae*	Tuber	Home yard
37.	Bayam	*Amaranthus spinosus* L.	*Amaranthaceae*	Leaves	Home yard
38.	Umbing	*Averrhoa carambola*.L.	*Oxalidaceae*	Fruit	Home yard
39.	Kalamantik	*Nephelium lappaceum* L.	*Sapindaceae*	Fruit	Home yard
40.	Sarai	*Cymbopogon citratus*	*Poaceae*	Stem	Home yard
41.	Sukun	*Artocarpus altilis*	*Moraceae*	Fruit	Home yard
42.	Koko	*Theobroma cacao* L.	*Malvaceae*	Fruit	Forest
43.	Singkara	*Araca catechu*	*Arecaceae*	Fruit	Home yard
44.	Jagong	*Zea mays* L.	*Poaceae*	Fruit	Garden
45.	Rosella	*Hibiscus sabdariffa* Linn	*Malvaceae*	Flower, young leaves	Home yard
46.	Bungkang	*Syzygium polyanthum*	*Myrtaceae*	Young leaves, fruit	Forest
47.	Kencur	*Kaempferia galangal* L.	*Zingiberaceae*	Rhizome	Home yard
48.	Ase	*Oryza sativa*	*Poaceae*	Rice	Fields
49.	Jambu Air	*Syzygium aqueum*	*Myrtaceae*	Fruit	Home yard
50.	Aratak	*Vigna sinensis* L.	*Leguminocecae*	Fruit, young leaves	Garden
51.	Jengkol	*Archidendron pauciflorum*	*Fabeceae*	Fruit	Forest
52.	Kangkung	*Ipomoea aquatic*	*Convolvulaceae*	Leaves, stem	Home yard
53.	Kalamunting	*Melastoma affine*	*Melastomataceae*	Fruit	Forest

54.	Kapari	*Momordica charantia* L.	*Cucurbitaceae*	Fruit	Garden
55.	Pusut	*Luffa acutangula* L.	*Cucurbitaceae*	Fruit	Garden
56.	Kunyit	*Curcuma longa*	*Zingiberaceae*	Rhizome	Home yard
57.	Tantamu	*Curcuma zanthorrhiza*	*Zingiberaceae*	Rhizome	Home yard
58.	Langkuas	*Dimocarpus longan* L.	*Sapindacaeae*	Rhizome	Home yard
59.	Laia baute	*Zingiber officinale*	*Zingiberaceae*	Rhizome	Home yard
60.	Laia dadara	*Zingiber officinale*	*Zingiberaceae*	Rhizome	Home yard
61.	Lenset	*Lansium domesticum*	*Meliaceae*	Fruit	Forest
62.	Durian Balanda	*Annona muricata* L.	*Annonaceae*	Fruit	Forest
63.	Inyak	*Cocos nucifera*	*Arecaceae*	Fruit	Home yard
64.	Antimun uma	*Cucumis sativus*	*Cucurbitaceae*	Young fruit	Forest
65.	Buapang	*Capsicum annum* L.	*Solanaceae*	Fruit	Home yard
66.	Kandis	*Garcinia celebica*	*Clusiaceae*	Fruit	Forest
67.	Tabu Intaror	*Saccharum adule* Hassk	*Poaceae*	Flower	Home yard
68.	Durian	*Durio zibethinus*	*Malvaceae*	Fruit	Forest
69.	Unti Kayu	*Carica papaya*	*Caricaceae*	Fruit, flower, young leaves	Home yard
70.	Kambunga	*Syzygium malaccense*	*Myrtaceae*	Fruit	Forest
71.	Kakawang	*Shorea macrophylla*	*Dipterocarpaceae*	Fruit	Forest
72.	Tarung Sina	*Solanum melongena*	*Solanaceae*	Fruit	Garden
73.	Aratak Binuang	*Abelmoschus esculentus*	*Malvaceae*	Fruit	Garden
74.	Tomat	*Solalum iycopersicum*	*Solanaceae*	Fruit	Garden
75.	Unti Babari	*Ananas comosus*	*Bromeliaceae*	Fruit	Home yard
76.	Lao baute’	*Lagenaria siceraria*	*Cucurbitaceae*	Fruit	Garden
77.	Kakabu	*Ceiba pentandra*	*Malvaceae*	Fruit	Forest
78.	Mangga	*Mangifera indica*	*Anacardiaceae*	Fruit	Forest
79.	Lasikan	*Myristica fragrans houtt*	*Myristicaceae*	Fruit	Forest
80.	Paranggi	*Cucurbita moschata*	*cucurbitaceae*	Fruit	Garden
81.	Papakan	*Duria kutejensis*	*Malvaceae*	Fruit	Forest
82.	Kalang	*Ocimum basilicum* L.	*Lamiaceae*	Seed, leaves	Home yard
83.	Kucai	*Allium schoenoprasum*	*Liliaceae*	Fruit	Garden
84.	Jambu karak	*B. axinanthera*	*Melastomataceae*	Fruit	Forest
85.	Tambuk panang	*Nephelium glabrum*	*Sapindaceae*	Fruit	Forest
86.	Limau bali	*Citrus grandis*	*Rutaceae*	Fruit	Forest
87.	Jenger	*Ploiarium alternifolium* (vahl) Melch.	*Bonnetiaceae*	Leaves	Forest
88.	Tapis	*Hornstedtia scyphifera*	*Zingiberaceae*	Fruit	Forest
89.	Tarung masam	*Solanum ferox*	*Solanaceae*	Fruit	Forest
90.	Sawi hantu	*Elephantopus scaber* L.	*Asteraceae*	Leaves	Home yard
91.	Kurandik	*Dialium indum* L.	*Leguminocecae*	Fruit	Forest
92.	Tangkalak	*Litsea angulata*	*Lauraceae*	Fruit	Forest
93.	Totolok	*Garcinia forbesii*	*Guttiferae*	Fruit	Forest
94.	Kemantan	*mangifera foetida lour*	*Anacardiaceae*	Fruit	Forest
95.	Sampolam	*Mangifera indica* L	*Anacardiaceae*	Fruit	Forest

3.2 The Percentage of Family

The following data will present data relating to the number of plant food families used by Tamambaloh community in Labian Ira'ang Village. The data are presented in Table 2.

Table 2: The percentage of plant food families

No	Family Name	Percentage
1.	*Zingiberaceae*	8,42 %
2.	*Moraceae*	7,37 %
3.	*Cucurbitaceae*	6,31%
4.	*Malvaceae*	6,31%
5.	*Solanaceae*	5,26 %
6.	*Poaceae*	5,26 %
7.	*Arecaceae*	4,21 %
8.	*Areceae*	3,16 %
9.	*Anacardiaceae*	3,16 %
10.	*Myrtaceae*	3,16 %
11.	*Gramineae*	2,10%
12.	*Polypodiaceae*	2,10%
13.	*Eurhorbiaceae*	2,10%
14.	*Clusiaceae*	2,10%

15.	*Liliaceae*	2,10%
16.	*Convolvulaceae*	2,10%
17.	*Sapindaceae*	2,10%
18.	*Leguminoceae*	2,10%
19.	*Melastomataceae*	2,10%
20.	*Meliaceae*	2,10%
21.	*Clusiaceae*	2,10%
22.	*Dileniaceae*	1,05 %
23.	*Passifloraceae*	1,05 %
24.	*Flacourtiaceae*	1,05 %
25.	*Euphorbeaceae*	1,05 %
26.	*Blechnaceae*	1,05 %
27.	*Musaceae*	1,05 %
28.	*Ranunculaceae*	1,05 %
29.	*Rubiaceae*	1,05 %
30.	*Fagaceae*	1,05 %
31.	*Iridaceae*	1,05 %
32.	*Amaranthaceae*	1,05 %
33.	*Oxalidaceae*	1,05 %
34.	*Fabeceae*	1,05 %
35.	*Annonaceae*	1,05 %
36.	*Caricaceae*	1,05 %
37.	*Dipterocarpaceae*	1,05%
38.	*Bromeliaceae*	1,05 %
39.	*Lamiaceae*	1,05 %
40.	*Rutaceae*	1,05 %
41.	*Bonnetiaceae*	1,05 %
42.	*Asteraceae*	1,05 %
43.	*Lauraceae*	1,05 %
44.	*Guttiferae*	1,05 %

3.3 Percentage of Utilized Parts

Potential parts of plant food used by Tamambaloh Dayak community in Labian Ira'ang Village, Batang Lupar District are fruit, leaves, rhizomes, cabbage (*umbut*), seeds, flowers, stems, buds, shoots, tendrils, and banana blossom. Part of the utilized plants is presented in Table 3.

Table 3: Part of utilized plants

No	Part of utilized plants	Persentase
1.	Fruit	71,58%
2.	Young leaves	15,79 %
3.	Leaves	10,53 %
4.	Rhizomes	6,31 %
5.	Cabbage (*umbut*)	5,26 %
6.	Seeds	5,26 %
7.	Flowers	4,21 %
8.	Young stem	2,10 %
9.	Buds	2,10 %
10.	Shoots	2,10 %
11.	Tendrils	1,05 %
12.	Banana blossom	1,05 %

3.4 The Percentage of Habitat Type

Potential plant food are taken from different habitats of village forest, hills, river banks, gardens, fields, and home yards presented in Table 4.

Table 4: Habitat of plant food

No	Habitat	Percentage
1.	Forest	46,31 %
2.	Home yard	29,47 %
3.	Garden	10,52 %
4.	River Beach	8,42 %
5.	Hills	4,21 %
6.	Fields	1,05 %

4. Discussion

Based on Government Regulation no. 8 of 1999, wild flora and fauna are representing the part of biological natural resources which can be utilized for the largest interest of people prosperity, and its exploitation shall be conducted by observing to the continuity of potency. Plant foods are anything that grows, trunked, rooted, leafy, and can be eaten or consumed by humans. Based on the results of interviews and field surveys on the community, potential plant foods were found in 95 species of 44 families (Table 2). The family *Zingiberacea*e is the most common family type found with a percentage of 8.42%. The family *Zingiberacea*e includes *patikala* (*Etlingera elatior*), *jangkang* (*Horntedtia scottiana)*, *kencur (Kaempferia galangal* L.*), kunyit (Curcuma longa), tantamu (Curcuma zanthorrhiza), Laia baute (Zingiber officinale), Laia dadara (Zingiber officinale), Tapis (Hornstedtia scyphifera).* Furthermore, it is followed by the

famili *Moraceae with a percentage of* 7,37%. The famili *Moraceae* includes *Kakatup (Broussontia papyrifera tree), Karam (Ficus variegate), Ara (Ficus fistulosa), Timadak (Artocarpus integer), Kundur (Artocarpus camansi), Takalong (Artocarpus sericicarpus), Sukun (Artocarpus altilis).*

The diversity of plant food based on the plant parts used is grouped into 11 parts which include fruit, leaves, cabbage (umbut), flowers, buds, seeds, shoots, tendrils, stems, banana blossom, and rhizomes. The most widely used part of food plant is fruit of 71.58%. The second part of the food plant is leaves of 15.79 %. Dayak Tamambaloh community mostly uses fruits as their food because fruits are useful for the body as a source of vitamins and fiber. Hamidah (2015) stated that fruits offer health benefit as a source of vitamins and fiber and sustain human life to keep the body healthy. Fruit is a widely used because it can be consumed raw or do not require specific processing. Juliana *et al* (2013) [8] stated that fruit is widely consumed by the community because the flesh of a fruit generally does not require any specific process and can be a source of water and nutrients as people carry out activities. According Lestari (2011) [10], most people use leaves because they believe that leaves stored various kinds of mineral substances of plants brought by the roots to the stem and ends in the leaves.

Dayak Tamambaloh community generally use forests, yard houses, gardens, river beaches, hills and fields to plant their plant food. The most common habitat types of plant food are forests of 46.31%, home yard of 29.47%, garden of 10.52%, river beach of 8.42%, hills of 4,21% and fields of 1.05%. Forests become the most widely found habitat of plant food because mostly Dayak Tamambaloh people are farmers so they can easily find and collect plants that can be used as their food in forest areas. Forests as an ecosystem are not only saves natural resources such as wood, but also saves biological resources of various benefits, one of them is plant food (Dasman *et al* , 2015) [2]. The real contribution of forests to food availability is the optimization of the use of forest resources as food resources. The availability of food sourced from forests is obtained through the utilization of animal and plant germplasm to meet their food and shelter (Menhut, 2010). The contribution of this forest is in line with Presidential Regulation no. 83 of 2006 on the Food Security Council, where the Ministry of Forestry is one of members that are responsible for food security.

Furthermore, Dayak Tamambaloh people use their home yard to plant some plant foods. The home yard has a number of roles in the socio-economic life of the community's household. According to Desuciani (2012) [3], home yard plays a considerable role in the countryside to support utilization land in producing food. Sastrapradja et al (1980); Sajogyo (1994) [16] stated that home yard is a living granary, a living stall. It is called as a living granary because home yard can provide their basic food such as rice, corn, tubers and so forth every time. Such resources are stored fresh in the home yard. It is called as a living stall because there are useful vegetables in the yard to meet the needs of family consumption. Furthermore, Farneubun (2014) [5] stated that home yard has a very important role for the community because most of the plant foods are also cultivated in the yard to facilitate the community to meet their needs when they cannot take the plant food in the garden.

5. Conclusion

Based on interviews and field surveys, there were 95 species of 44 families. The family *Zingiberacea*e is the most common family type found with a percentage of 8.42%. The largest number of plant parts used by Dayak Tamambaloh people in Labian Ira'ang Village are fruit, leaves, cabbage (umbut), flowers, buds, seeds, shoots, tendrils, stems, banana blossom, and rhizomes. The most widely parts used are fruit of 71,58%, young leaves of 15,79%, leaves of 10,53%, rhizome of 6,31%, cabbage of 5,26%, seed of 5,26%, flower of 4, 21%, young stems of 2,10%, shoots of 2.10%, buds of 2.10%, tendrils of 1.05%, and banana blossom of 1.05 %. The most common habitat types of plant food are forests of 4 6.31%, home yard of 29,47%, garden of 10,52%, river beach of 8,42%, hills of 4,21% and field of 1,05%. The knowledge of the utilization of plants in Dayak Tamambaloh community in Labian Ira'ang village also reflects the interaction level between community and their forest and it is also a local knowledge to meet their daily needs that have lasted for a long time.

6. Acknowledgment

We would like to thanks Directorate General of Learning & Student Affairs of Kemenristekdikti who has funded the research of Student Creativity Program (PKM) with contract number 667/KONTRAK-PKM/K11.A/KM/2018. We also would like to thank the Chairman of the Education Agency of *Karya Bangsa Sintang*, the Chairman of STKIP Persada Khatulistiwa Sintang, Labian Ira'ang Chief, Customary Board, Community Leaders and all informants who have provided assistance both technical and non technical, directly or indirectly, related to all research activities conducted in Labian Ira'ang Village, Batang Lupar District, Kapuas Hulu Regency.

7. References

1. BPS Kabupaten Sambas. 2012. Kecamatan Sembawi dalam Angka 2011. Katalog BPS 2012. Sambas.
2. Dasman Y, Oramahi, Sisillia L. Tumbuhan Sumber Pangan yang Dimanfaatkan oleh Masyarakat Sekitar Hutan Tembawang Desa Nanga Kompi Kecamatan Nanga Sayan Kabupaten Melawi. Jurnal Hutan Lesatri, 2015; 3(2):332-336.
3. Desuciani A. Etnobotani Pangan dan Obat Masyarakat Sekitar Kawasan Taman Hutan Raya Wan Abdul Rachman (Studi Kasus pada Suku Lampung Pesisir). Departemen Konservasi Sumberdaya Hutan dan Ekowisata Fakultas Kehutanan Institut Pertanian Bogor. Bogor, 2012.
4. Fakhrozi I. Etnobotani masyarakat Suku Melayu Tradisional di sekitar Taman Nasional Bukit Tiga Puluh: Studi kasus di Desa Rantau Langsat Kec. Batang Gangsal, Kab. Indragiri Hulu, provinsi Riau (Skripsi). Bogor (ID): Institut Pertanian Bogor, Fakultas Kehutanan, 2009.
5. Farneubun MT. Etnobotani Pangan dan Obat Masyarakat Suku Kei Kampung Adat Waur Kei Besar Maluku Tenggara. Fakultas Kehutanan ITB. Bogor, 2014.
6. Gunawan H. Dampak Rencana Pembangunan Jalan

Melintasi Kawasan Lindung Terhadap Keseimbangan Ekosistem Dan Habitat. Makalah disampaikan pada National Inception Workshop dengan tema "Membangun Ketahanan Hutan Hujan Tropis Sumatera untuk Mitigasi Perubahan Iklim dan Keanekaragaman Hayati", Di Hotel Santika Dyandra, Medan, tanggal 23-24 September 2014.
7. Hamidah S. Sayuran dan Buah Serta Manfaatnya Bagi Kesehatan. Disampaikan dalam Pengajian Jamaah Langar Mafaza Kotagede Yogyakarta, 18 Januari 2015. Yogyakarta, 2015.
8. Juliana, Riza L, Mukarlina. Pemanfaatan Tumbuhan yang Berpotensi Sebagai Sumber Pangan di Gunung Peramas Desa Pangkalan Buton Kecamatan Sukadana Kabupaten Kayong Utara. Jurnal Protobiont, 2013; 2(3):117-121.
9. Keraf SA. Etika Lingkungan, Pn. Buku Kompas, Jakarta. KMNLH. 2007. Status Lingkungan Hidup Indonesia. Jakarta, 2002.
10. Lestari R. Kajian etnobotani masyarakat Suku Kerinci di sekitar Hutan Adat Bukit Tinggai Desa Sungai Deras, Kabupaten Kerinci Provinsi Jambi (skripsi). Bogor (ID): Institut Pertanian Bogor, Fakultas Kehutanan, 2011.
11. Martin GJ. Ethnobotany: A Methods Manual. Chapman & Hall. London, 1995.
12. Menteri Kehutanan. 2010. Pengelolaan dan pemanfaatan sumberdaya hutan untuk mendukung peningkatan produksi pangan. Disampaikan pada seminar nasional ketahanan pangan menuju "Feed The World", 28 Januari 2010. Jakarta, 1995.
13. Nopandry B. Hutan untuk masyarakat pemanfaatan lestari hutan konservasi. Buletin Konservasi Alam. 2007; 7(1):4-8.
14. Peraturan Pemerintah Republik Indonesia Nomor 8 Tahun tentang pemanfaatan jenis tumbuhan dan satwa liar, 1999.
15. Peraturan Presiden Republik Indonesia Nomor 83 Tahun Tentang Dewan Ketahanan Pangan, 2006.
16. Sajogyo. Menuju Gizi Baik yang Merata di Pedesaan dan di Kota. Gajah Mada Press. Yogyakarta, 1994.
17. Sastrapradja S, Naiola BP, Rasmadi ER, Roemantyo, Soepardijono EK, Waluyo EB. Tanaman Pekarangan. Lembaga Biologi Nasional (LIPI). Bogor, 1980.
18. Soekarman Riswan S. Status Pengetahuan Etnobotani di Indonesia. Prosiding seminar dan Lokakarya Nasional Etnobotani. Bogor (ID): Departemen Pendidikan dan Kebudayaan, Departemen Pertanian dan Lembaga Ilmu Pengetahuan Indonesia, 1992.
19. Takoy DM, Linda R, Lovadi I. Tumbuhan Berkhasiat Obat Suku Dayak Seberuang di Kawasan Hutan Desa Ensabang Kecamatan Sepauk Kabupaten Sintang. Protobiont. 2013; 2(3):122-128.
20. Uluk A, Sudana M, Wollenberg E. Ketregantungan Masyarakat Dayak terhadap Hutan di Sekitar Taman Nasional Kayan Mentarang. Bogor: Center For International Forestry Research (CIFOR), 2001.