



## Dayak limbai tribe: Plants for the ritual of bathing babies in the river (*mupok*)



Yuniarti Essi Utami<sup>ID\*</sup>, Didin Syafruddin, Markus Iyus Supiandi

Biology Education Study Program, STKIP Persada Khatulistiwa Sintang, Indonesia

\*Corresponding author: [yuniartiessiutami@gmail.com](mailto:yuniartiessiutami@gmail.com)

### Article Info

#### Article History:

Received 08 September 2023

Revised 25 October 2023

Accepted 28 November 2023

Published 30 November 2023

#### Keywords:

Dayak

Limba

Plants

Ritual

*Mupok*



### ABSTRACT

The Dayak Limbai tribe is a Dayak sub-tribe in Melawi Regency, West Kalimantan Province. The Dayak Limbai tribe uses plants for the *mupok* traditional ritual ceremony. However, the Dayak Limbai Tribe has no written documentation and is not in scientific literature. This research aims to obtain plant species, plant parts used, how to utilize them, and the meaning of plants used in the traditional ritual ceremony of *mupok*. The research method used is a descriptive qualitative method using a survey technique. The data collection tool used is an interview sheet. Data analysis used by researchers is descriptive qualitative. The results of this study were 15 plant species in 12 families that were used as ritual plants in the *mupok* traditional ceremony in the Dayak Limbai tribe. The plant parts used are stems, leaves, fruits, and seeds. Plants are seven ritual plants and one chicken tied together, which will later be moved towards sunrise and sunset. Plants moving toward sunrise have as many as four ritual plants, while plants moving toward sunset have as many as three.

Copyright © 2023, Utami et al

This is an open access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license



**Citation:** Utami YE, Syafruddin D., & Supiandi MI. (2023). Dayak limbai tribe: Plants for the ritual of bathing babies in the river (*mupok*). *JPBIO (Jurnal Pendidikan Biologi)*, 8(2), 302-313. DOI: <https://doi.org/10.31932/jpbio.v8i2.2792>

### INTRODUCTION

Indonesia is an archipelago consisting of 34 provinces, one of which is West Kalimantan Province, located in the western part of Kalimantan Island (Aditya, 2020). The province has an area of 146,807 km<sup>2</sup>, or 1.13 times the size of Java (Nugroho, 2020). It is the fourth largest province after Papua, East Kalimantan, and Central Kalimantan (Khofifah, 2001), with forests reaching 9,125,486 hectares (Sardana, Hernawati, Dharma, Nugroho & Aliyah, 2011), so the forest becomes the main source of life in the community (Rochmah, Safe'i, Bintoro, Kaskoyo, & Rahma, 2020). West Kalimantan is also a province that has a diversity of tribes in it, one of which is the Dayak Tribe. The Dayak tribe is divided into 405 sub-tribes (Lontaan, 1974). One is the Dayak Limbai sub-tribe which is administratively located in Batas Nangka Village, Menukung District, Melawi Regency, West Kalimantan Province.



The Dayak Limbai tribe still depends on natural products to meet their daily needs. For example, in cultivating crops, utilizing medicines, raising livestock, hunting, and gathering, the Dayak Limbai tribe has knowledge about the use of plant diversity passed down from their ancestors. This hereditary knowledge includes the traditional *mupok* ceremony performed on infants. The traditional ritual ceremony of *mupok* is to bathe a baby in the river with the aim of purification and acceptance by the universe. Thus, the baby is allowed to be bathed in the river. Before the baby is bathed in the river, a ritual is performed by utilizing plants and conditions as incantations that the customary leader will perform. The community obtains insight into the use of local plants through inheritance from parents, relatives, and others (Supiandi, Mahanal, Zubaidah & Julung, 2019). Rosiana (2013) states that Indonesia's pluralistic culture can lead to a variety of knowledge and local wisdom for the community (Alis, 2021).

Local wisdom is one of the universal elements of traditional culture (Fahmal, 2006; Mawaddah, Misrah, 2023). Local wisdom is very important because it is a knowledge that has many functions (Sirtha, 2003). The functions of local wisdom are (1) for the conservation and preservation of natural resources, (2) to develop human resources, (3) for the development of culture and science, (4) as advice, beliefs, literature, and taboos, (Sartini, 2004; Aulia, 2010).

Traditional ceremonies using plants carried out by the community are increasingly eroded by modernization (Suparwata, Rukmana, Tenriawaru & Neswati, 2020; Ramli, Malek, Milow & Aziz, 2021). The community's knowledge and use of plants in traditional ceremonies are decreasing, so their existence needs to be noticed (Andila, Warseno, Syafitri & Tirta, 2021). Moreover, documentation related to using plants in traditional ceremonies is still relatively few, and knowledge transfer from generation to generation is mostly done orally (Surata, Gata & Sudiana, 2015). On the other hand, Iskandar and Iskandar (2017) mentioned that traditional environmental management beliefs and knowledge are very important regarding biodiversity conservation (Parween & Marchant, 2021; Susanti & Zuhud, 2019; Setiawan, Sukesi, Hidayat, Yuliati, 2021).

Based on the results of previous research, several problems were identified that could threaten local wisdom in Dayak communities, including the Limbai Dayak Tribe, including (1) the practice of local wisdom from generation to generation is conveyed orally, (2) technological advances and foreign cultures, (3) environmental damage is increasing day by day from land clearing for industrial forest development, oil palm plantations, illegal logging and shifting cultivation (Rasyid, 2014; Fajrini, 2021; Purnomo, Zahra, Malawani & Anand, 2021). This requires comprehensive handling as an effort to change and make people aware of the importance of preserving nature.

Based on these problems, it becomes increasingly important to research the ethnobotany of ritual plant utilization in the *mupok* traditional ceremony in the Dayak Limbai tribe because it can be used to document the knowledge of traditional communities. Ethnobotany is a scientific branch that studies the direct relationship between humans and plants in terms of their utilization and management, especially in traditional communities (Atok & Hilmi, 2010; Hamzah, Nurhasanah, Harijati, Pangerapan, & Suriani, 2023; Mulu, Ntelok, SII, & Mulu, 2020). Tapundu & Anam (2015) stated that ethnobotany has the potential to reveal the traditional knowledge system of a community or ethnic group regarding biological resource diversity, conservation, and culture so that it can be seen the parts of plants, types of plants, how to use plants and the meaning of each plant used in the traditional ritual of *mupok*.

## RESEARCH METHODS

### Research Design

This research uses a qualitative descriptive approach. The qualitative descriptive approach is research that describes and explains data qualitatively and refers to the natural environment, which intends to understand ethnobotany related to traditional knowledge in the Dayak Limbai tribe

about the types of traditional ritual plants of *mupok* and how they are used. Researchers choose descriptive qualitative research design because they want to describe the situation that will be observed in the field more clearly and in-depth.

### Population and Samples

This research determines respondents using the snowball sampling method, in which sources are selected based on the recommendations of previous sources until no new source names are mentioned. Researchers use purposive sampling techniques to find samples that are difficult to obtain or to obtain information from respondents about specific problems. The respondents involved in this study were four people who understood the types of ritual plants and how to use them in the traditional ritual ceremony of *mupok* in the Dayak Limbai tribe (4 people). The criteria that can become respondents according to the requirements set by the researcher are (a) families who hold traditional rituals of bathing babies in the river (*mupok*) in the Dayak Limbai tribe, (b) traditional leaders, (c) temenggung, (d) people who know traditional ritual plants bathing babies in the river (*mupok*).

### Instruments

The instrument used in this study was a structured interview sheet. A structured interview sheet is an interview where the interviewer prepares a pre-made format. Interviews were addressed to traditional administrators, traditional healers, and the Dayak Limbai tribe, who know about using plants in bathing babies in the river. The indicators of the interview sheet in this study are (1) tools and materials used in the traditional *mupok* ritual, (2) stages of the traditional *mupok* ritual, (3) types of plants used in the traditional *mupok* ritual, (4) the meaning of plants used in the traditional *mupok* ritual.

### Procedures

Research on the ethnobotany of ritual plant utilization in the *mupok* traditional ceremony was carried out in the Dayak Limbai Tribe, Batas Nangka Village, Menukung District, Melawi Regency, carried out in July 2023. The stages of research conducted by researchers are presented in Table I.

**Table I.** Research procedure

No	Time	Activity Stages	Activity Details
1	2 April 2023	Compile the interview sheet	The interview sheet is arranged in statements related to ritual plants used in the <i>mupok</i> traditional ceremony in the Dayak Limbai tribe community.
2	21 Juli 2023	Research license	Researchers delivered a research permit to the Head of Batas Nangka Village.
3	21 Juli 2023 – 25 Juli 2023	Interview	Researchers interviewed five respondents who understood the ritual plants used in the <i>mupok</i> traditional ceremony in the Dayak Limbai tribe.
4	26 Juli – 3 Agustus 2023	Taking photos of medicinal plants	Researchers with the community documented the types of ritual plants used in the <i>mupok</i> traditional ritual ceremony in the Dayak Limbai tribe.
5	7 Agustus 2023	Research data analysis	The researcher determines the scientific name and family name of the ritual plants obtained in the field during the research.



### Data Analysis

Data analysis techniques, namely qualitative descriptive analysis, are used in this research. Qualitative descriptive data analysis with stages: (a) data collection by determining the scientific name of ritual plants by matching data in the field with data on <http://www.plantamor.com> and relevant reference books, (b) data reduction by consulting with plant experts, (c) data presentation and conclusion drawing by tabulating and describing data into tables with the following format:

Scientific Name	Local Name	Family	Parts Used	Utilization Method	Meaning

### RESULTS

Based on the results of field research in detail the process of the traditional *mupok* ritual, namely: **Stage 1:** the host who holds the *mupok* ritual prepares seven pieces of young bamboo (if it is a boy) and five pieces (if it is a girl) to be filled with glutinous rice, then roasted and the skin of the young bamboo is peeled. After the young bamboo has been roasted and peeled, the next stage is woven to be used as a place for babies to lie down. The woven bamboo is covered with seven layers of batik sarong (if it is a boy) and five layers (if it is a girl). Each layer of batik sarong is filled with an unspecified amount of money. **Stage 2:** the baby is laid on a woven bamboo and batik sarong cloth, then the baby is ready for the *betopas* ritual (expelling all forms of spirits that make bad luck to the baby) by moving the hand holding seven plants and one chicken that has been tied together towards the baby according to the direction of sunrise (4 ritual plants) by moving the hand 11x and in the direction of sunset (3 ritual plants) by moving the hand 7x. **Stage 3:** The baby lying on the woven bamboo is ready to be smeared using chicken blood and saliva from 7 people who have eaten betel nuts using chicken wing feathers. The smearing stage starts from the mouth, head, liver, and hands. **Stage 4:** The baby lying on the woven bamboo is ready to be blown using seven bamboo sticks that are approximately 10 cm each and tied together. The blowing begins by wetting the tied bamboo with water prepared on a plate. Blowing is done successively, starting from the head, eyes, ears, nose, mouth, heart, hands, and legs. **Stage 5:** The woven bamboo is rotated, and then the baby on the woven bamboo is handed over from the traditional leader to the next six people, and each person gets the money in each layer of the batik sarong cloth. The last person to hold the baby is the biological mother, with one batik sarong remaining on the baby's body. **Stage 6:** Baby is ready to be lifted over the swing hung on the door for 7x turns. **Stage 7:** Baby steps on the egg, iron (hammer, machete, or iron object), and soil. **Stage 8:** cutting the baby's hair and nails. The person who cuts the hair and nails is obliged to give money to the baby for an unspecified amount. **Stage 9:** carrying the baby to the villagers present at the *mupok* event. **Stage 10:** the baby is taken to the river to be bathed for the first time. Delivering the baby to the river is accompanied by sounding gongs and rifles and carrying a bamboo stick and *Kelengkang* (a place to store offerings).

Based on data obtained in the field, 15 plant species in 12 families are used in the ritual of putting babies into the river (*mupok*) held in Batas Nangka Village, Menukung District, Melawi Regency, presented in Table 2.

**Table 2.** *Mupok* Traditional Ritual Ceremony Plants

Family	Scientific Name	Local Name	Parts Used	Utilization Method	Meaning
<i>Arecaceae</i>	<i>Areca catechu</i> L.	<i>Pinong</i>	Fruit	The fruit on the areca nut ( <i>pinong</i> ) plant is peeled first. After	The symbol of a descendant who is good



				peeling the fruit, the meat can be eaten immediately. Usually, the flesh of the areca nut is mixed with betel leaves, making it easy to eat.	in character, honest, and has a high degree.
	<i>Cocos nucifera</i> L.	<i>Nyio</i>	Fruit	The fruit of the coconut plant ( <i>nyio</i> ) is usually brought to the river when the <i>mupok</i> ceremony is over. Coconuts ( <i>nyio</i> ) that are used are usually coconuts that have sprouted, which will later be tied together with offerings that are handed over to the spirits.	The core symbol for survival and symbolizes the new generation
<i>Bignoniaceae</i>	<i>Spathodea campanulata</i> P.Beauv.	<i>Tongau</i>	Leaves	The leaves are tied with six other leaves and tied with a chicken, then moved 11x towards the baby by pointing to the rising sun.	A light or guide for the baby's future life path
<i>Costaceae</i>	<i>Costus barbatus</i> Suess.	<i>Ketaba</i>	Leaves	The leaf is tied with six other leaves and tied with a chicken, then moved 7x towards the baby by pointing to the setting sun.	Keeps baby from all kinds of diseases
<i>Gramineae</i>	<i>Oryza sativa</i> L.var <i>glutinosa</i>	<i>Boras Pulut</i>	Seeds	In the traditional ceremony of <i>mupok boras pulut</i> is used as one of the ingredients or tools in the <i>betopas</i> ceremony (expelling all evil spirits from the baby)	As a symbol of brotherhood
<i>Malvaceae</i>	<i>Pterospermum javanicum</i> Jungh.	<i>Kayu Kae</i>	Leaves	The leaves are tied with six other leaves and tied with a chicken, then moved 11x towards the baby by pointing to the rising sun.	Bringing a lot of sustenance to the baby
<i>Palmae</i>	<i>Calamus</i> L.	<i>Uwi</i>	Trunk	In this plant, the stem is used. The stems of the	Strengthen the bonds of

				rattan ( <i>uwi</i> ) plant are usually used as handicrafts by local communities; in the traditional ceremony of <i>mupok</i> rattan ( <i>uwi</i> ) is used as a weaver of bamboo that has been filled with glutinous rice ( <i>boras pulut</i> ), bamboo that has been woven using rattan ( <i>uwi</i> ) will later be used as a place where the baby is laid in the <i>betopas</i> ceremony (expelling evil spirits who want to disturb the baby)	brotherhood and strengthen family relationships.
<i>Piperaceae</i>	<i>Piper betle</i> L.	<i>Kemaonk</i>	Leaves	The leaves of the betel plant ( <i>Kemaonk</i> ) are cleaned first and then mixed with the flesh of the areca nut by keeping the areca nut inside the betel leaf, then folding the betel leaf and eating it immediately.	A unifying leaf and symbol of love
<i>Poaceae</i>	<i>Bambusa vulgaris</i> Schrad.	<i>Buluh</i>	Trunk	The stem of the young bamboo (reed) is filled with glutinous rice that has been soaked with water, and then the bamboo that has been filled with glutinous rice is burned until the glutinous rice in the bamboo is cooked. After cooking the bamboo containing the glutinous rice is woven using rattan. The woven bamboo is one of the tools in the <i>mupok</i> ceremony.	Symbol of a knight, hero, and martial arts warrior and symbolizes a strong life in facing all life's problems
	<i>Oryza sativa</i> L.	<i>Boras Padi</i>	Seeds	In the traditional ceremony of <i>mupok</i>	In life, we must not

				boras, rice is used as one of the materials or tools in the <i>betopas</i> ceremony (expelling all evil spirits from the baby)	boast about what we have; be an increasingly knowledgeable but still humble person.
<i>Rubiaceae</i>	<i>Hamelia patens</i> Jacq.	<i>Modang Anjung</i>	Leaves	The leaves are tied with six other leaves and tied with a chicken, then moved 11x towards the baby by pointing to the rising sun.	Helps growth and development in infants
	<i>Psychotria asiatic</i> L.	<i>Enkereban g</i>	Leaves	The leaf is tied with six other leaves and tied with a chicken, then moved 7x towards the baby by pointing to the setting sun.	Removes bad luck and illness from the baby
<i>Salicaceae</i>	<i>Ryania speciosa</i> Vahl	<i>Kayu Paga</i>	Leaves	The leaves are tied with six other leaves and tied with a chicken, then moved 11x towards the baby by pointing to the rising sun.	Guarding the baby's soul from spirits
<i>Solanaceae</i>	<i>Nicotiana tabacum</i> L.	<i>Suwik</i>	Leaves	The leaves of tobacco plants ( <i>suwik</i> ) are usually used as a mixture of betel nut, areca nut, and lime during the <i>nginang</i> tradition.	Symbolizes greatness and is a complement when there is a shortage
<i>Vitaceae</i>	<i>Leea indica</i> (Burm. f.) Merr.	<i>Mali-mali</i>	Leaves	The leaf is tied with six other leaves and tied with a chicken, then moved 7x towards the baby by pointing to the setting sun.	So as not to get sick and avoid defects

## DISCUSSION

Based on the results of interviews with respondents, there are 15 plant species in 12 families used in the *mupok* traditional ceremony held in Batas Nangka Village, Menukung District, Melawi Regency, namely: *engkerobong* (*P. asiatica*), *mali-mali* (*L. indica*), *ketaba* (*C. barbatus*), *tongau* (*S. campanulate*), *modang anjung* (*H. patens*), *kayu paga* (*R. speciosa*), *kayu kae* (*P. javanicum*), *kemaonk* (*P. betle*), *pinong* (*A. catechu*), *suwik* (*N. tabacum*), *buluh* (*Bambusa*), *nyio* (*C. nucifera*), *boras padi* (*O. sativa*), *boras pulut* (*O. sativa*), and *uwi* (*Calamus*). The most widely used families are the *Arecaceae* family (2 species), the *Poaceae* family (2 species), and *Rubiaceae* (2 species).



The Dayak Limbai tribe community utilizes these plants because almost all types of plants can be used as traditional medicines and are easy to obtain. The source of the acquisition of plants used in the *mupok* traditional ritual ceremony in the Dayak Limbai tribe community are mostly obtained from the yard, and some grow wild in the forest and are cultivated. The community cultivates the plants they use in traditional ritual ceremonies around their residence so that it is easy to get them. This aligns with what Purwanti (2017) and Helida (2016) conveyed: some plants are obtained from around the house or cultivated or grow wild in the forest.

The Dayak Limbai tribe, during the *mupok* traditional ceremony, utilizes plant parts in the form of stems, leaves, fruits, and seeds. The use of these plant parts is due to several reasons, namely as follows: (1) the knowledge is passed down from generation to generation by previous parents or ancestors, (2) the knowledge is obtained from dreams, (3) the parts of the plant are easy to obtain and the availability in the forest is very much, (4) taking the parts of the plant will not cause the plant to die.

Meanwhile, Rahyuni, Yniati & Pitopang (2013) stated that the plant parts used in traditional ceremonies are roots, stems, leaves, fruits, flowers, seeds, tubers, and fronds. The most widely used part of the plant is the leaves, which are as many as nine species, including *engkerobong* (*P. asiatica*), *mali-mali* (*L. indica*), *ketaba* (*C. barbatus*), *tongau* (*S. campanulate*), *modang anjung* (*H. patens*), *kayu paga* (*R. speciosa*), *kayu kae* (*P. javanicum*), *kemaonk* (*P. betle*) and *suwik* (*N. tabacum*). This is because the leaves are easy to obtain, and the availability is very high. Meanwhile, Zahara (2017) states that leaves are very easy to obtain in plants, and their availability does not depend on the season. The stem part is as many as two species, including *buluh* (*Bambusa*) and *uwi* (*Calamus*). The fruit part has as many as two species, including *pinong* (*A. catechu*) and *nyio* (*C. nucifera*). The seed part is as many as two species: *boras padi* (*O. sativa*) and *boras pulut* (*O. sativa*).

Each plant used in the *mupok* traditional ceremony has a different way of utilization, including (1) *engkerobong* (*P. asiatica*); the leaves are tied with six other leaves and tied with one chicken, then moved 7x towards the baby by pointing to the sunset, (2) *mali-mali* (*L. indica*); how to use it is using, the leaves are tied with six other leaves and tied with one chicken, then moved 7x towards the baby towards the sunset, (3) *ketaba* (*C. barbatus*); how to use it is using, the leaves are tied with six other leaves and tied with one chicken, then moved 7x towards the baby towards the sunset.

Furthermore, point to (4) *tongau* (*S. campanulate*); how to use it is using, the leaves are tied with six other leaves and tied with one chicken, then moved 11x towards the baby towards the sunrise, (5) *modang anjung* (*H. patens*); how to use it is using, the leaves are tied with six other leaves and tied with one chicken, then moved 11x towards the baby towards the sunrise, (6) *kayu paga* (*R. speciosa*); how to use it is using, the leaves are tied with six other leaves and tied with one chicken, then moved 11x towards the baby towards the sunrise, (7) *kayu kae* (*P. javanicum*); how to use it is by tying the leaves with six other leaves and tied with one chicken, then moving 11x towards the baby towards the sunrise.

Furthermore, point (8) *kemaonk* (*P. betle*) how to use it is using, the leaves of the *betle* plant (*kemaonk*) are cleaned first, then mixed with the flesh of the *pinong* by keeping the *pinong* inside the *betle* leaf then folding the *betle* leaf and eating it immediately. The traditional ceremony of *mupok betle* (*kemaonk*) is also one of the ingredients of offerings that will be given to the spirits in the hope that the spirits will not disturb the baby. Usually, these *betle* leaves are served at every event, such as weddings, thanksgiving events, death events, and other events, (9) *pinong* (*A. catechu*); how to use it is by peeling the fruit of the *pinong* plant first, after peeling the fruit meat can be eaten immediately. Usually, the meat of the *pinong* is mixed with betel leaves, making it easy

to eat. Usually, in the *mupok* traditional ceremony, *pinong* plants are also used as one of the ingredients for offerings.

Furthermore, point (10) *suwik* (*N. tabacum*); how to use it is by the way, the leaves on tobacco plants (*suwik*) are usually used as a mixture of betel nut, areca nut, and lime during the *nginang* tradition. *Nginang* is a heritage tradition used to be carried out by people who like to eat snacks. In the traditional *mupok* ceremony tobacco (*suwik*) is also one of the ingredients of the offerings that will be given to the spirits in the hope that the spirits will not disturb the baby. Usually, this tobacco (*suwik*) is usually served at every event, such as weddings, thanksgiving, death, and other events. (11) *buluh* (*Bambusa*); how to use it is when the stems on young bamboo (reed) are filled with glutinous rice that has been soaked with water, then the bamboo that has been filled with glutinous rice is burned until the glutinous rice in the bamboo is cooked, after cooking the bamboo containing the glutinous rice is woven using rattan. The woven bamboo is one of the tools in the *mupok* (*betopas*) ceremony.

Furthermore, point to (12) *nyio* (*C. nucifera*); how to use it is, by the way, the fruit on coconut plants (*nyio*) is usually taken to the lake when the *mupok* traditional ceremony has been completed. Coconuts (*nyio*) that are used are usually coconuts that have sprouted, which will later be tied together with offerings that are handed over to subtle spirits, (13) *boras padi* (*O. sativa*); how to use it is, by the way, seeds on rice (*boras padi*) are harvested by hand, but there are also using boras padi harvesting machines. Then, separate the grain from the stem by beating, but dry it first for about a week. Before processing, the grain needs to be dried first. Next, grind the grain to separate the rice husk from the boras. In the traditional *mupok* ceremony, boras padi is used as one of the materials or tools in the *betopas* ceremony (expelling all evil spirits from the baby).

Furthermore, point (14) *boras pulut* (*O. sativa*); how to use it is by way of seeds on glutinous rice (*boras pulut*) harvested by hand, but there are also *boras pulut* harvesting machines. Then, separate the grain from the stem by beating, but dry it first for about a week. Before processing, the grain needs to be dried first. The next milling stage is to separate the boras pulut seeds from the grain. At the *mupok* traditional ceremony boras pulut is used as one of the ingredients or tools in the *betopas* ceremony (expelling all evil spirits from the baby anyway), (15) *uwi* (*Calamus*); the way it is used is by using it as an ingredient or tool in the *betopas* ceremony; how to use it is by the way, the stems of the rattan plant (*uwi*) are usually used as handicrafts by local communities, in the traditional ceremony of *mupok* rattan (*uwi*) is used as a weaver of bamboo that has been filled with glutinous rice (*boras pulut*), bamboo that has been woven using rattan (*uwi*) will later be used as a place for babies to be laid in the *betopas* ceremony (expelling evil spirits who want to disturb the baby). The results of research conducted in the Dayak Limbai tribe can be supported by Purwanti (2017), which states that the processing of plants used in traditional ritual ceremonies is by cooking, grinding, consuming directly, making baskets, or directly placing on during according to the needs of each traditional ritual ceremony.

Each plant used during the *mupok* traditional ceremony has a main function related to meaning. According to Iskandar and Iskandar (2017) plants used in traditional ceremonies have a main function related to symbolic meaning. The meaning of each plant used in the *mupok* traditional ceremony includes (1) *engkerobong* (*P. asiatica*); has the meaning of removing bad luck and disease in babies, (2) *mali-mali* (*L. indica*); means that the baby will not get sick and avoid defects, (3) *ketaba* (*C. barbatus*); means to protect the baby from all kinds of diseases, (4) *tongau* (*S. campanulate*) means to illuminate or guide the baby's life path in the future, (5) *modang anjung* (*H. patens*); means to help the growth and development of the baby, (6) *kayu paga* (*R. speciosa*); has the meaning of protecting the baby's soul from spirits, (7) *kayu kae* (*P. javanicum*); has the meaning of bringing a lot of sustenance to the baby, (8) *kemaonk* (*P. betle*); has a meaning as a symbol of love, giving and love, (9) *pinong* (*A. catechu*); has the meaning of good offspring,

friendship and togetherness, (10) *suwik* (*N. tabacum*); has the meaning of steadfastness and willing to help others, (11) *buluh* (*Bambusa*); has the meaning of life that is useful for human life, (12) *nyio* (*C. nucifera*); has the meaning of health, strength, and high ideals, (13) *boras padi* (*O. sativa*); has the meaning of being useful to others and not arrogant, (14) *boras pulut* (*O. sativa*); has the meaning of closeness to others, (15) *uwi* (*Calamus*); has the meaning of being useful to everyone and reliable.

## CONCLUSION

The Dayak Limbai tribe in Batas Nangka Village, Menukung District, Melawi Regency has traditional knowledge of using plants for the *mupok* traditional ritual ceremony. The Dayak Limbai tribe utilizes plants for the *mupok* traditional ceremony and as many as 15 plant species in 12 families.

The plant parts used are stems, leaves, fruits, and seeds. How to use plants, starting with preparing seven ritual plants and one chicken tied together, which will later be moved towards sunrise and sunset; plants moving towards sunrise are four ritual plants, while plants moving towards sunset are three ritual plants. This research can be a reference for the wider community to preserve traditional knowledge in utilizing ritual plants and make efforts to preserve plants that have uses as traditional ritual plants used in the traditional *mupok* ceremony in the Dayak Limbai tribe community.

## ACKNOWLEDGMENT

The researcher would like to thank the parties who have helped throughout the research process, namely: (a) DRTPM for funding the beginner lecturer research scheme in 2023, (b) all respondents who have provided information about the *mupok* ritual, (c) the chairman of the Karya Bangsa Education Board Association of Sintang, and (d) the Chairman of STKIP Persada Khatulistiwa Sintang.

## REFERENCES

- Aditya, A. (2020). *Menjadi guru penggerak bagi siswa*. Sukabumi: CV Jejak.
- Alis, A. (2021). Social cohesion of local wisdom for plural communities. *International Journal Ihya' Ulum al-Din*, 23(2), 210-223. Retrieved from [10.21580/ihya.23.2.8261](https://doi.org/10.21580/ihya.23.2.8261)
- Andila, P.S., Warseno, T., Syafitri, W., & Tirta, G. (2021). Ethnobotanical study of hindu society in Tabanan Bali and the conservation efforts. *Advances in Biological Sciences Research*, 22, 590-597. Retrieved from [10.2991/absr.k.220406.085](https://doi.org/10.2991/absr.k.220406.085)
- Aulia, S. (2010). *Pedoman bertanam jagung*. Bandung: Nuansa Aulia.
- Darmadi, H. (2016). Dayak asal-usul dan penyebarannya di bumi Borneo (1). *Sosial Horizon: Jurnal Pendidikan Sosial*, 3(2), 322-340. Retrieved from <https://doi.org/10.31571/sosial.v3i2.376>
- Fahmal, M. (2006). *Peran asas-asas umum pemerintah yang layak dalam mewujudkan pemerintahan yang bersih*. Yogyakarta: UII Press.
- Fajrini, R. (2021). Environmental harm and decriminalization of traditional slash-and-burn practices in Indonesia. *International Journal for Crime, Justice and Social Democracy*, 11(1), 28-43. Retrieved from <https://doi.org/10.5204/ijcsd.2034>
- Hamzah, A.H.P., Nurhasanah., Harijati, S., Pangerapan, S.B., & Suriani, C. (2023). Ethnobotanical identification of medicinal plants used by the Sangihe tribe in Sangihe Archipelago District, North Sulawesi. *Jurnal Penelitian Pendidikan IPA*, 9(7), 5765–5772. Retrieved from [10.29303/jppipa.v9i7.3924](https://doi.org/10.29303/jppipa.v9i7.3924)

- Helida, A., Zuhud, E.A.M., Hardjanto, H., Purwanto, Y., & Hikmat, A. (2016). Makna nilai penting budaya keanekaragaman hayati tumbuhan bagi masyarakat di taman nasional kerinci seblat di Kabupaten Kerinci, Propinsi Jambi. *Jurnal Ilmu-ilmu Hayati*, 15(1), 7-15. Retrieved from [10.14203/beritabiologi.v15i1.2853](https://doi.org/10.14203/beritabiologi.v15i1.2853)
- Iskandar, J., & Iskandar, B.S. (2017). Various plants of traditional rituals: ethnobotanical research among the Baduy Community. *Biosaintifika*, 9(1), 114-125. Retrieved from <https://doi.org/10.15294/biosaintifika.v9i1.8117>
- Mawaddah & Misrah. (2023). The role of culturists in guiding the local wisdom tradition of pantang kemali in adolescent. *Scaffolding: Jurnal Pendidikan Islam dan Multikulturalisme*, 5(1), 364-379. Retrieved from <https://doi.org/10.37680/scaffolding.v5i1.2580>
- Mulu, M., Ntelok, Z.R.E., SII, P., Mulu, H. (2020). Ethnobotanical knowledge and conservation practices of indigenous people of Mbeliling Forest Area, Indonesia. *Biodiversitas*, 21(5), 1861-1873. Retrieved from <https://doi.org/10.13057/biodiv/d210512>
- Nugroho, A. (2020). *Tiga provinsi terus membuka diri untuk lokasi kkn*. Yogyakarta: Universitas Gadjah Mada.
- Purnomo, E.P., Zahra, A.A., Malawani, A.D., & Anand, P. (2021). The Kalimantan forest fires: an actor analysis based on supreme court documents in Indonesia. *Sustainability*, 13(2342), 1-12. Retrieved from <https://doi.org/10.3390/su13042342>
- Purwanti., Miswan., & Pitopang, R. (2017). Studi etnobotani pada proses ritual adat masyarakat suku Saluan di Desa Pasokan Kabupaten Tojo Una-Una. *Biocelebes*, 11(1), 46-60. Retrieved from <https://bestjournal.untad.ac.id/index.php/Biocelebes/article/view/8471>
- Rahyuni, E., Yniati., & Pitopang R. (2013). Kajian etnobotani tumbuhan ritual suku tajio di desa Kasimbar Kabupaten Parigi Moutong. *Natural Science: Journal of Science and Technology*, 2(2), 46-53. Retrieved from <http://jurnal.untad.ac.id/jurnal/index.php/ejurnalfmipa/article/view/1647>
- Ramli, M.P., Malek, S., Milow, P., & Aziz, N.J. (2021). Traditional knowledge of medicinal plants in the Kampung Orang Asli Donglai Baru, Hulu Langat, Malaysia. *Biodiversitas*, 22(3), 1304-1309. Retrieved from <https://doi.org/10.13057/biodiv/d220329>
- Rasyid, H. (2014). *Dasar-dasar statistik terapan*. Bandung: Unpad.
- Rochmah, S.F., Saf'ei, R., Bintoro, A., Kaskoyo, H., & Rahmat, H. (2020). The effect of forest health on social conditions of the community. *IOP Conf. Series: Earth and Environmental Science*, 739(012016), 1-7. Retrieved from <https://doi.org/10.1088/1755-1315/739/1/012016>
- Rosiana, A. (2013). Kajian etnobotani masyarakat sekitar kawasan cagar alam Imogiri Bantul Yogyakarta. *Skripsi*. Yogyakarta: Jurusan Biologi, Fakultas Sains dan Teknologi, UIN Sunan Kalijaga.
- Sardana, A., Hernawati, J., Dharma, N.G.G.Y., Nugroho, A.E., & Aliyah, N. (2011). *Potret provinsi Kalimantan Barat*. Pontianak: Kementerian Kehutanan Direktorat Jendral Planologi Kehutanan Balai Pemantapan Kawasan Hutan Wilayah III Pontianak (ID).
- Setiawan, E., Sukesni, K., Hidayat, K., & Yuliati, Y. (2021). Conservation of natural resource management in the Buffer Village Community of Alas Purwo Banyuwangi National Park East Java Indonesia Based on Local Wisdom. *Local Wisdom Scientific Online Journal*, 13(1), 100–111. Retrieved from <https://doi.org/10.26905/lw.v13i1.5109>
- Sirtha, I. N. (2003). Pelestarian warisan budaya berbasis desa adat. *Dinamika Kebudayaan*, 5(1), 31-37. Retrieved from <https://lib.ui.ac.id/detail.jsp?id=64975>
- Suparwata, D. O., Rukmana, D., Tenriawaru, A.N., & Neswati, R. (2020). Actualization of local community participation in critical land management in Gorontalo. *IOP Conf. Series: Earth*

- and Environmental Science*, 755(012056), 1-10. Retrieved from <https://doi.org/10.1088/1755-1315/755/1/012056>
- Supiandi, M. I., Mahanal, S., Zubaidah, S., Julung, H., & Ege, B. (2019). Ethnobotany of traditional medicinal plants used by Dayak Desa community in Sintang, West Kalimantan, Indonesia. *Biodiversitas*, 20(5), 1264-1270. Retrieved from <https://doi.org/10.13057/biodiv/d200516>
- Surata, I.K., Gata, I.W., & Sudiana, I.M. (2015). Studi etnobotanik tanaman upacara hindu Bali sebagai upaya pelestarian kearifan lokal. *Jurnal Kajian Bali*, 5(2), 265-284. Retrieved from <https://ojs.unud.ac.id/index.php/kajianbali/article/view/16776>
- Susanti, R., & Zuhud, E.A.M. (2019). Traditional ecological knowledge and biodiversity conservation: the medicinal plants of the Dayak Krayan people in Kayan Mentarang National Park, Indonesia. *Biodiversitas*, 20(9), 2764-2779. Retrieved from <https://doi.org/10.13057/biodiv/d200943>
- Tapundu, A. S., & Anam, S. (2015). Studi etnobotani tumbuhan obat pada suku Seko di Desa Tanah Harapan, Kabupaten Sigi, Sulawesi Tengah. *Biocelebes*, 9(2), 66–86. Retrieved from <http://jurnal.untad.ac.id/jurnal/index.php/Biocelebes/article/view/5125>
- Zahara, M. (2017). A review: micropropagation of phalaenopsis sp from leaf and flower stalk explants. *Jurnal Natural*, 17(2), 91-95. Retrieved from [10.24815/jn.v0i0.8130](https://doi.org/10.24815/jn.v0i0.8130)