

JPPIPA 9(2) (2023)

Jurnal Penelitian Pendidikan IPA

Journal of Research in Science Education



http://jppipa.unram.ac.id/index.php/jppipa/index

Medicinal Plant Used by Indigenous People Namely Suku Anak Dalam (SAD) in Nyogan Village Jambi Province

Upik Yelianti^{1*}, Muswita¹, Dara Mutiara Aswan¹

¹ Biology Education Teacher Training and Education Faculty Universitas Jambi, Indonesia

Received: Nopember 13, 2022 Revised: January 30, 2023 Accepted: February 25, 2023 Published: February 28, 2023

Corresponding Author: Upik Yelianti upik.yelianti@unja.ac.id

© 2023 The Authors. This open access article is distributed under a (CC-BY License)

DOI: 10.29303/jppipa.v9i2.1008

Abstract: Medicinal plants have long been known and used by the people of Indonesia and are still used today because they rarely cause side effects. One community that still uses plants as traditional medicine is the Suku Anak Dalam (Anak Dalam Tribe) (SAD) which lives in Nyogan Village, Mestong District, Jambi. As a result of the land use change in Jambi, where the forest has shifted to oil palm plantations, the forest as a habitat for medicinal plants is also decreasing, and there is even a concern that there will be a loss of germplasm. This research aimed to find out medicinal plants used by SAD in traditional medicine. This research is qualitative research with in-depth interviews and observation to collect data. The results showed that there were about 17 plants used as traditional medicine by SAD in Nyogan Village. Of the 17 plant species, four plant species were classified rare, namely Mampat wood (Cratoxylum arborescens (Vahl.) Blume), Putat wood (Planchonia valida [B.]), Brumbung wood (Adina minutiflora Val; Pertusadina spp), Bulian wood (Eusideroxylon zwageri L.). The parts of the plant that are often used for traditional medicine are bark, leaves, and plant roots, as internal medicine (oral) and external medicine. The results of this research provide an overview of medicinal plants that are still used by SAD so that they can be preserved in the future.

Keywords: Medicinal Plant; Indigenous People; SAD; Nyogan Village

Introduction

Traditional medicinal plants have long been known by Indonesian people and used for generations. Various indigenous people around the forest have used numerous plant species to maintain health and treat various diseases. Traditional medicines are processed traditionally from generation to generation, and based on ancient recipes, customs, beliefs, or habits of the local community, both supernatural and traditional knowledge (Gao et al., 2019; Karunamoorthi et al., 2013). According to current research, traditional medicines are indeed beneficial for health. Their use is now being intensified because they are more accessible to the public in price and availability (Coco et al., 2022; Makgahlela et al., 2022). Unfortunately, the use of plants as medicines has not been well recorded for a long time. There are about 1,100 medicinal plant species and around 1,040 species of medicinal plants in Indonesia. According to the Indonesian Ministry of Health in Decree No. 381/Menkes/SK/III/2007, medical plants are beneficial and valuable. They are all high-level plants whose use has been identified for the treatment of the tendency of people's lifestyles to return to nature (back to nature), causes them to prefer using traditional medicines to chemical drugs because they have almost no side effects (Lako et al., 2020).

Herbal medicine play a paramount role to serve as a health service requirement, especially in remote areas in developing countries where herbal medicines are the only medicine available in those area (Nagarajan et al., 2021). More than 80% of the world's population depends on traditional medicine (jamu). One of the indigenous communities that still adheres to consuming traditional medicine in Jambi Province is Suku Anak Dalam (SAD) in Nyogan Village, Mestong District. At first, they lived

How to Cite:

Yelianti, U., Muswita, M., & Aswan, D.M. (2023). Medicinal Plant Used by Indigenous People Namely Suku Anak Dalam (SAD) in Nyogan Village Jambi Province. Jurnal Penelitian Pendidikan IPA, 9(2), 977–980. https://doi.org/10.29303/jppipa.v9i2.1008

very dependently on the forest, but due to massive land use changes to oil palm plantations and illegal logging, they lost their resources of medicinal plants in the forest (Asridawati et al., 2020; Perawati et al., 2019).

Indonesia is a country rich in medicinal plant biodiversity. The conservation and sustainable use of these species in Indonesia are critical because of incipient population growth, changing land usage, forest clearance, and climate change in a country where most of the population depends on traditional medicines for their health care and well-being (Cahyaningsih et al., 2021; Sholikhah, 2016).

Nyogan Village, Mestong District, is one of the trans-social areas for the indigenous people called Suku Anak Dalam (SAD) that has been fostered by the Jambi Provincial government. They have settled and no longer move from place to place in the forest. In addition, they already have a house, and the school-age children have received education and facilities for worship. However, they are still steadfast in performing rituals of using various plants for various diseases treatment. It is often called Besale. Local wisdom in using plants as traditional medicine commonly used by SAD in Nyogan Village needs to be observed through in-depth and preserved (Ani et al., 2021; Santoso et al., 2019; Zukmadini et al., 2020). The use of traditional medicine by SAD in the trans-social in Nyogan village has no previous research as a source of information and documentation. Exploration of medicinal plants' potential is still not optimal because they must compete with synthetic drugs. Therefore, it is paramount to conduct research on the use of traditional medicine by SAD in Nyogan village and its conservation efforts (Asra et al., 2020; Kurniawan & Syafri, 2020).

Method

This qualitative research has been done from July to October 2021. SAD conducted an inventory of various types of medicinal plants used to treat numerous diseases in Nyogan Village, Mestong District, Jambi Province. Through conversations with Tumenggung and traditional healers, information on the sorts of medicinal herbs utilized and how they are used by SAD was collected. Data collection techniques with snowball sampling method and in-depth interview. A sampling of traditional medicinal plants was carried out for identification purposes through the herbarium.

Result and Discussion

The research results obtained that 17 species belonging to 14 plant families were used as traditional medicine by the Suku Anak Dalam (SAD) in Nyogan village. In general, these medicinal plants are rarely found around residential communities. Plants that are still used by SAD as traditional medicine is in Table 1 below.

Table 1. Names of Plants Used as Traditional Medicineby SAD in Nyogan Village, Mestong District, JambiProvince

Family Name Latin Name		Local Name	Existing
Lecythidaceae	Planchonia valida [B.]	Kayu Putat	rare
Hypericaceae	Cratoxylum arborescens (Vahl) Blume	Kayu mampat/Gerunggang	rare
Rubiaceae	Adina multiflora Val	Kayu Brumbung	rare
	<i>Uncaria gambir</i> (Hunter) Roxb.	Gambir	rare
Arecaceae	Areca catechu L.	Pinang	a lot
	Daemonorops draco (Wild.) Blume	Jerenang	rare
Piperaceae	Piper betle L.	Sirih	rare
Solanaceae	Nicotiana tabacum L.	Tembakau	rare
Poaceae	Cymbopogon citratus	Serai (Lemmon grass)	a lot
	<i>Imperata cilindrica</i> (L) Raeusch	Alang-alang	a lot
Acanthaceae	Justicia gendarussa	Gandarusa	a lot
Fabaceae	Cassia alata L.	Ketepeng Cina	a lot
Simaroubaceae	Eurycoma longifolia Jack.	Pasak Bumi	rare
Smilaxaceae	Smilax megacarpa DC	Akar timah	rare
Asteraceae	Blumea balsamifera L.	Sembung	a lot
Leguminosae	Abrus precatorius Linn.	Sago merah	rare
Guttiferacae	Garcinia xanthochymus	Akar Kandis	rare

Based on Table 1, 17 species of medicinal plants used by SAD belong to 14 families. In general, these plants are rarely found around SAD settlements. It is because there has been a change in land use from forest to oil palm plantations, which has caused the forest as a habitat for plants that have the potential as a traditional medicine which has reduced, which of course, causes the loss of germplasm. Therefore, it is feared that SAD will no longer use plants as an alternative to traditional medicine, especially if conservation efforts are not made for the biological resources of medicinal plants with medicinal properties.

The existence of several plants that are usually used as traditional medicine by SAD, such as *Mampat* wood (*Cratoxylum arborescens* (Vahl) Blume) and *Brumbung* wood (*Adina multiflora* Val), are very rare to find. Based on observations with Tumenggung, Mampat wood (*Planchonia valida* [B.]) usually only grows in the Bahar river, which is far from SAD settlements. Likewise, with *Brumbung* wood (*Adina multiflora* Val), only one tree is found areas around people's houses. However, for Putat wood (*Planchonia valida* [B.]), it is common to find it along the rivers in Nyogan village.

The existence of *Mampat* wood, *Putat* wood, and *Brumbung* wood has started to move. There are two kinds of wood in the Bahar river flow, *Mampat* wood and Putat wood. *Mampat* wood is rare, but Putat wood is often found as a vegetation component in watersheds. Around people's houses, only one tree trunk was found in the *Brumbung* wood. The scarcity of several types of traditional medicinal plants used by the SAD community in Nyogan village is caused by the fact that

the forest land as a place for the SAD community to obtain medicinal plants has changed its function to become an oil palm plantation (Asridawati et al., 2020).

The SAD community in Nyogan village uses therapeutic herbs in oral form (drinking) and some external (medicine). When they are eating betel nut to maintain healthy teeth and mouth, their plants are especially used in one type of disease prevention. The uses of the medicinal plants, part of the plant, and way to use are shown in Table 2.

Table 2. The Use, Part, and Way to Use the MedicinalPlantsby the SADcommunity in Nyogan village, JambiProvince

Names of the plant	Use of the plant	Part of the plant	Way to use
Planchonia valida [B.]	Stomach ache	Bark	The bark is boiled and drunk
Cratoxylum arborescens (Vahl)	Medicine for skin/ itching	Barks and leaves	The bark is boiled and smear
Blume Adina multiflora Val	Fever and stomach ache	Barks	The barks is boiled dan drink
Uncaria gambir (Hunter) Roxb.	1.Strengthening teeth and oral health (Betel nut food) 2.Toothache	1.Leaf sap 2.2. Leaves	3. Chew and swallow the water4. Gambir leaves pounded and then placed on the aching tooth
Areca catechu L.	Strengthening teeth and oral health (Betel nut food)	Fruits	Chew and swallow the water
Daemonorops draco (Wild.) Blume	Wound	Jernang sap	resin leaves and rhizomes turmeric is heated in coals of fire and then applied to the wound
Piper betle L.	Strengthening teeth and oral health (Betel nut food)	Leaves	Chew and swallow the water
Nicotiana tabacum L.	Strengthening teeth and oral health (Betel nut food)	Dried Leaf	Chew and swallow the water
Cymbopogon citratus	-Antiimflamation, - medication after birth	All parts of plants	Boiled dan bathed
Imperata cilindrica (L) Raeusch	1. Wounds 2.Anti Drunk	Roots	 For wound weed root pounded plus oil and smeared the wound Alang - Alang roots arechewed
Justicia gendarussa Burms f.	 Rheumatism, Bruises 	Leaves	 Boiled the leaves and drink Crush the leaves and
Cassia alata Linn.	Fungal attack (<i>Panu</i>)and itchy	Leaves	apply Leaves of C. alata Linn pounded and added water, apply it.
Eurycoma longifolia Jack.	Malaria, fever	Roots	Boiled and drink
Smilax megacarpa DC	Sore Eye	Stems	The stems of the Smilax are finely ground, and the water is squeezed out and then dripped into the eye.
Blumea balsamifera L.	Fever	Leaves	Sembung leaves are boiled and drunk while warm.
Abrus precatorius Linn.	Fever	Leaves	Sago leaves are soaked in warm water added brown sugar then drink
Garcinia xanthochymus	Ulceration	Skin of fruits	Kandis skin sap is affixed to ulceration

Table 2 shows that most of medicinal plants used to treat the disease internally or by drinking, such as *Planchonia valida* [B.], *Planchonia valida* [B.], *Uncaria* gambir (Hunter) Roxb., *Imperata cilindrica* (L) Raeusch, *Eurycoma longifolia* Jack., *Blumea balsamifera* L., and *Abrus* precatorius Linn. However, some are used externally by smearing them, those are Daemonorops draco (Wild.) Blume, Cymbopogon citratus, Cassia alata Linn., Garcinia xanthochymus, Smilax megacarpa DC, Justicia gendarussa Burms f. Interestingly, some medicinal plants are used both internally and externally, such as Justicia gendarussa Burms f., Cassia alata Jack, Imperata cilindrica (L) Raeusch, Cymbopogon citratus, and Cratoxylum arborescens (Vahl) Blume.

Table 2 also shows the parts of medicinal plants, such as leaves, bark, roots, and fruit. Generally, the leaves are used by boiling, drinking, and sometimes smearing them. Another part of the medicinal plant used is bark. The bark is the outer skin of the stem that also has the potential as a medicinal plant.

Conclusion

Based on the results of the research that has been done, it can be concluded that the Anak Dalam tribe in the village of Nyogan, Jambi Province, still uses plants as an alternative to traditional medicine. There are 17 types of traditional medicinal plants used by SAD in Nyogan village belonging to 14 families, which are starting to be difficult to find because the forest as their habitat has been decreasing due to land conversion. The parts of the plant that are often used in medicine are: leaves, bark, roots and fruit. How to use these medicinal plants is cooked, then drunk and there is also an external drug by pounding and rubbing on the affected part. It is suggested to the government to be able to preserve traditional medicinal plants so as not to lose their germplasm.

References

- Ani, N., Sukenti, K., Aryanti, E., & Rohyani, I. S. (2021). Ethnobotany study of medicinal plants by the Mbojo Tribe community in Ndano Village at the Madapangga Nature Park, Bima, West Nusa Tenggara. Jurnal Biologi Tropis, 21(2), 456– 469. https://doi.org/10.29303/jbt.v21i2.2666.
- Asra, R., Silalahi, M., & Fijridiyanto, I. A. (2020). The practice and plants used in besale ritual healing by the Anak Dalam tribe in Nyogan Village, Jambi, Indonesia. *Biodiversitas Journal of Biological Diversity*,21(10),4529–4536.

https://doi.org/10.13057/biodiv/d211009.

Asridawati, I., Perawati, S., & Yulianis, Y. (2020). Studi etnofarmasi pada Suku Anak Dalam (SAD) di Desa Semambu Kecamatan Sumay Kabupaten Tebo Provinsi Jambi (Ethnopharmacy study of Suku Anak Dalam (SAD) in Semambu Village, Sumay District, Tebo Regency, Jambi Province. Pharmacy: Jurnal Farmasi Indonesia, 17(1), 172-186.

- Cahyani, R., W. Wahyudi, A. 2021. Inventarisasi Jenis Tumbuhan Berpotensi Sebagai Obat Di Hutan Kerangas Kawasan Hutan Dengan Tujuan Khusus (Khdtk) Kebun Raya Sampit, Kalimantan Tengah. *Jurnal Penelitian Ekosistem Dipterokarpa*. 7(1). 23-34.
- Cahyaningsih, R., Brehm, J. M., & Maxted, N. (2021). Gap analysis of Indonesian priority medicinal plant species as part of their conservation planning. *Global Ecology and Conservation*, 26, 1-11. https://doi.org/10.1016/j.gecco.2021.e0.
- Coco, G., Pozzi, C., & Mortara, L. (2022). Biomedicine and traditional Chinese medicine: a fruitful scientific and cultural interaction. *Acta Biomedica*, 93(1). https://doi.org/10.23750/abm.v93i1.12093.
- Gae, L., Wei, N., Yang, G., Zhang, Z., Liu, G., & Cai, C. (2019). Etjnomedicine study on traditional medicinal plants in the Wuliang Montains of Jingdong, Yunnan, China. *Journal of Ethnobiology and Etnomedicine*, 15(1), 1-20. https://doi.org/10.1186/s13002-019-0316-1.
- Heyne, K., 1987. *Tumbuhan Berguna Indonesia* I- IV. Jakarta: Departemen Kehutanan RI.
- Karunamoorthi, K., Jegajeevanram, K., Vijayalakshmi, J., & Mengistie, E. (2013). Traditional medicinal plants: A source of phytotherapeutic modality in resourceconstrained health care settings. *Journal of Evidence-Based Complementary and Alternative Medicine*, 18(1), 67–74. https://doi.org/10.1177/2156587212460 241.
- Khairi, Y., A. (2021). Pohon Putat, Tumbuhan Liar yang Berkhasiat Bagi Kesehatan.
- Kurniawan, D., & Syafri, R. A. (2020). Besale sebagai kearifan lokal Suku Anak Dalam di Desa Nyogan Kecamatan Mestong Kabupaten Muaro Jambi (Besale as the local wisdom of the Suku Anak Dalam in Nyogan Village, Mestong District, Muaro Jambi Regency). *Jurnal Nasional Manajemen dan Bisnis*, 3, 274-287.
- Lako, J. D. W., Sube, K. L. L., Lumori, C. S. G.,Yengkopiong. J. P., Utong, J. A. M., Binyason, S.A., ...& Kheiralla, A. H. (2020). Diversity and distribution of medicinal plants in the republic of South Sudan. World Journal of Advanced Research and Reviews, 7(1), 18-31. https://doi.org/10.30574/wjarr.
- Makgahlela, M., Mabidilala, M., Lesolang, N., Jidong, D.
 E., & Monera- Penduka, T. G. (2022). Using traditional medicine to help with bereavement loss and coping: An interpretative phenomenological analysis of traditional healers' experiences. *Journal of Mental Health Training, Education and Practice*, 17(2), 145–158. https://doi.org/10.1108/JMHTEP-07-2021-0087.
- Nagarajan, S., Madhavan, S., & LakshmiNarasimhan, R. (2021). Indian herbal formulation Kaba Sura

Kudineer possesses the most powerful ligands to block ACE2-RBD interaction of SARS- CoV-2 infection. Indian *Journal of Traditional Knowledge*, 20,(4), 885-890. Retrieved from https://covid19.who.int/.

- Perawati, S., Andriani, L., Anggresani, L., & Ardila, E. (2019). Ethnopharmacy study of Suku Anak Dalam (SAD) in Muara Kilis Village, Tengah Ilir, Tebo District, Jambi Province. *Biospecies*, 12(2), 36–42. https://doi.org/10.22437/biospecies.v12i2.5551.
- Santoso, E. A., Jumari, J., & Utami, S. (2019). Inventory of medicinal plants for pregnant and postpartum women in Dayak Tomun of the Lopus Village Lamandau Regency of Central Kalimantan. Biosaintifika: *Journal of Biology & Biology Education*, 11(1), 25–31. https://doi.org/10.15294/biosaintifika.v11i1.1791 7.
- Sholikhah, E. N. (2016). Indonesian medicinal plants as sources of secondary metabolites for pharmaceutical industry. *Journal of The Medical Sciences*, 48(4), 226–239. https://doi.org/10.19106/jmedsci004804201606.
- Zukmadini, A. Y., Kasrina, K., Jumiarni, D., & Rochman, S. (2020). Pocketbook based on local wisdom and its effectivity in improving students' knowledge on the utilization of traditional medicine plants. Biosfer: *Jurnal Pendidikan Biologi*, 13(1), 59–74.