



The Ethnobotanical Study of Traditional Wedding Rituals among the Dayak Kanayatn Tribe

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(Received September 2025/Accepted May 2026)

ABSTRACT

The traditional wedding rituals of the Dayak Kanayatn use plants to reflect their spiritual bond with nature and contribute to biodiversity conservation through local knowledge. This study aimed to explore the variety of plant species utilized in traditional wedding rituals and interpret their cultural significance in supporting biodiversity conservation through culturally embedded practices in Dayak Kanayatn ceremonies in Ambawang Village, Kubu District, Kubu Raya Regency, West Kalimantan Province. The study took place from March to July 2023 across four hamlets—Tanah Kuning, Parit Sembilan, Kuala Ambawang, and Medan Sri. This ethnobotanical study employed methodological triangulation, incorporating interviews, observations and documentation. Informants were selected using the snowball sampling technique, beginning with key informants and continuing until data saturation was reached, indicated by the absence of new or relevant information. Traditional weddings begin with a series of rituals, including *makan pulut tunang*, *makan pulut rakeh*, *ngelulus adat*, *pembagian pirikng panganten*, and *pituah*. Thirteen plant species are used in three of the five wedding rituals. These plants are used symbolically, either as offerings to ancestral spirits or as ritual elements intended to summon them. The ritual use of these plants affirms their sacred role, stressing the need to conserve them as ecological and cultural assets in the future.

Keywords: cultural-ecological aspect, Dayak Kanayatn, ethnobotany, plants utilization, traditional wedding

INTRODUCTION

Marriage is a vital social institution that unites two individuals and reflects a society's cultural values, spirituality, and collective identity (Danani 2024; Khatun *et al.* 2022). It is celebrated through rituals rich in symbolism, embodying beliefs and traditions passed down through generations (Benu *et al.* 2025; Talubun *et al.* 2025). For instance, the Ternate wedding rituals—from *Sigado Salam* to *Saro-Saro*—express gratitude to God and reinforce cultural values (Ahmad *et al.* 2024), while the Mandailing wedding ceremonies symbolize gratitude to Allah and hopes for harmony (Harahap 2024). As meaningful communal events, weddings are carefully arranged to be memorable and respected by the community. Each culture celebrates marriage in unique ways that mirror its values, beliefs, and history, showcasing the richness and diversity of cultural expression (Güleç 2012; Janah & Rosdiana 2019; Rastegar *et al.* 2014).

Ethnobotany plays an important role in traditional wedding ceremonies across various ethnic groups (Aziz *et al.* 2018; Des *et al.* 2018). Among the Dayak Kanayatn, plants serve both symbolic and practical functions in ritual activities (Dirgari *et al.* 2022; Hasanah *et al.* 2025; Musmuliadi *et al.* 2022). The Dayak Kanayatn inhabit regions such as Landak, Bengkayang, Mempawah, and Ambawang Village in Kubu Raya Regency and share linguistic and cultural ties with the Salao indigenous community in Sarawak, Malaysia (Magiman *et al.* 2020). Religious influences have also shaped local wedding traditions, as seen in the adaptation of Ternate rituals after the arrival of Islam (Ahmad *et al.* 2024) and changes among the Dayak Kanayatn following the introduction of Catholicism (Chandra *et al.* 2022).

The preservation of cultural heritage is closely linked to biodiversity conservation, as both mutually support each other. Strong indigenous traditions emphasize the need for ethnobotanical documentation to ensure the transmission and sustainable use of local knowledge. Therefore, this study aims to explore and document the use of plants in the wedding rituals of the Dayak Kanayatn community in Ambawang Village, Kubu Raya Regency, to promote the preservation of local wisdom and foster awareness of the importance of conserving both biodiversity and cultural heritage.

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METHODS

Survey Location and Methods

The study was conducted from March to July 2023 in Ambawang Village, Kubu District, Kubu Raya Regency, West Kalimantan, involving four hamlets: Tanah Kuning, Parit Sembilan, Kuala Ambawang, and Medan Sri (Figure 1). Using a survey method with a triangulation approach—interviews, observations, and documentation—the research aimed to document the plant species used in traditional wedding rituals, along with their functions and cultural meanings. Observations were conducted to identify plants used in each ritual, and documentation supported data recording and the preparation of herbarium specimens.

Informants were selected using the snowball sampling technique (Shalas *et al.* 2021), starting with key informants and expanding based on recommendations until no new information emerged (Cresswell 2014). Seven key informants participated, including the village head, customary leader, ritual leader (*penyangahat*), and four hamlet heads, along with eight additional informants recognized for their knowledge of local wedding traditions.

Data collection involved semi-structured interviews, specimen collection, and plant identification. The interview guide included questions about ritual names, plant names, uses, and cultural meanings, while the observation sheet recorded plant locations, habitus, and whether they were cultivated or wild plants. The interviews were flexible, allowing for follow-up questions, such as tracing the sources of plants that are no longer found in the surrounding environment or determining whether purchased plants retained their traditional significance.

Plant Sample Identification

Plant identification followed standard botanical keys and was validated by taxonomic experts to ensure its accuracy.

Specimens were collected by gathering all vegetative and generative parts (roots, stems, leaves, and fruits), recorded, labeled, and processed into herbarium samples. The identification was conducted at the Biology Education Laboratory, Faculty of Teacher Training and Education, and verified by experts at the Biology Laboratory, Faculty of Mathematics and Natural Sciences, Tanjungpura University. Identification was based on morphological characteristics, with reference to Van Steenis (2003), scientific literature, and online databases such as The Plant List, World Flora Online, iNaturalist, Plants of the World Online, and *Flora Malesiana*.

Data Analysis

Data were analyzed descriptively and presented in tabular form, beginning with a description of each wedding ritual—its timing, location, and significance—followed by the categorization of plant species used. Each species was organized according to its scientific name, classification, plant part used, associated ritual, cultural function, and collection site.

RESULTS AND DISCUSSION

The Dayak Kanayatn community in Ambawang Village, Kubu Raya Regency, continues to preserve traditional wedding ceremonies known as *adat gawe panganten* (Figure 2). This tradition comprises a series

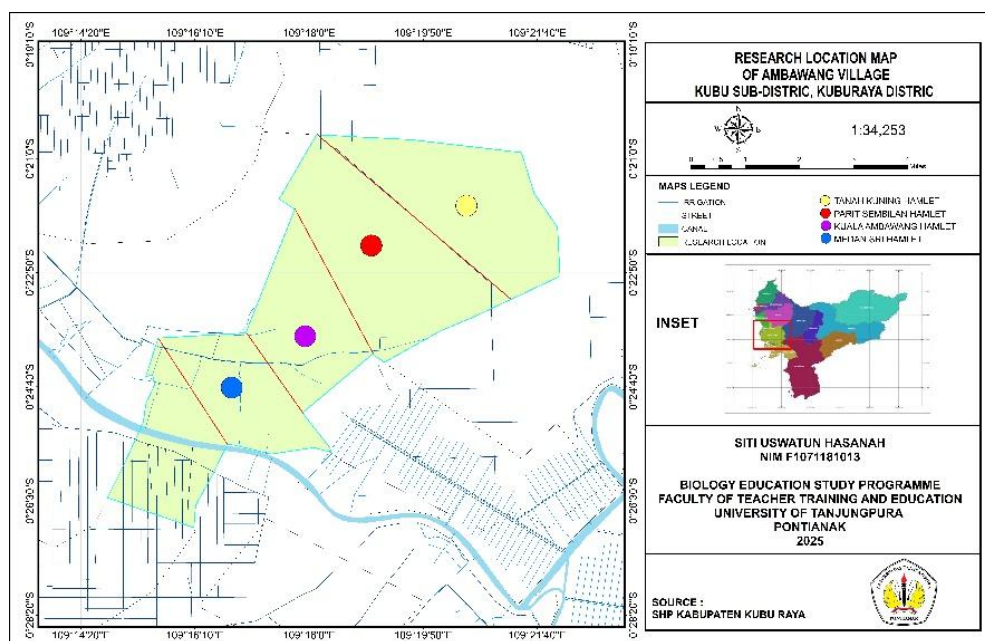


Figure 1 Study area in four hamlets within Ambawang Village, namely Tanah Kuning, Parit Sembilan, Kuala Ambawang, and Medan Sri.



Figure 2 Sequence of Rituals in the Dayak Kanayatn Traditional Wedding Ceremony in Ambawang Village, including A. *makan pulut tunang*, B. *makan pulut rakeh*, C. *ngelulus adat*, D. *pembagian pirinkng panganten*, and E. *pituah*.

of customary ceremonies performed in two stages: preparation and the wedding itself. The preparation stage includes *makan pulut tunang* (engagement and agreement on the wedding date) and *makan pulut rakeh*, while the wedding stage comprises *ngelulus adat* (traditional wedding ceremony), *pembagian pirinkng panganten* (distribution of ceremonial offerings to both families), and *pituah* (giving marital advice and blessings). Every one of these rituals carries deep spiritual meaning, symbolizing the community's strong bond with nature and their reverence for Jubata (God), who is regarded as the giver of life.

The ethnobotanical study of the Dayak Kanayatn community in Ambawang Village identified 13 plant species used in traditional wedding rituals (Table 1). Plants are involved in three rituals: *makan pulut tunang*, *makan pulut rakeh*, and *ngelulus adat*. The *Arecaceae* family is the most utilized, represented by the betel nut (*Areca catechu* L.), coconut (*Cocos nucifera* L.), and nypa palm (*Nypa fruticans* L.f.). Ritual plants are sourced from paddy fields, home yards, forests, and gardens, with home yards being the primary source. The collection is based on plant availability rather than specific site requirements.

The number of plant species and parts used in each traditional wedding ritual of the Dayak Kanayatn community in Ambawang Village varies between 6 and 13 species. The *ngelulus adat* ritual utilizes 13 species, *makan pulut tunang* involves 12, and *makan pulut rakeh* uses 6. Six plant species are consistently employed across all rituals—*Oryza sativa*, *O. sativa* var. *glutinosa*, *Cordyline fructicosa*, *Piper betle*, *Nypa fruticans*, and *Cocos nucifera*—serve as symbolic species that reinforce the community's beliefs and

spirituality. The symbolic meanings of these plants are generally consistent across rituals: as offerings to ancestral spirits (seven species), tributes to the souls of the deceased (one), spirit-summoning media (one), serving vessels for ancestral spirits (two), and natural dyes (one). An exception is the coconut (*C. nucifera*), which serves as a spirit-summoning medium in the *makan pulut rakeh* ritual and as an offering to ancestral spirits in the *makan pulut tunang* and *ngelulus adat* rituals. Plant parts used include leaves (seven species), seeds (two), stems (one), fruits (one), and rhizomes (one), while coconut and banana are used for two parts—leaves and fruits. In indigenous cultures, such as that of the Dayak Kanayatn, plants are not merely natural resources but possess deep spiritual meaning, with specific parts serving as mediums for communication with ancestors and nature spirits (Koithan and Farrell 2010; Saputra 2020; Turner *et al.* 2022). The use of plants as offerings to ancestral spirits reflects the community's spiritual worldview, in which plants act as mediators between humans and ancestral beings (Hasanah *et al.* 2025; Kwirinus and Saeng 2023).

Based on the conservation status (Table 2) from IUCN Red List of Threatened Species (2024) (accessed July 15, 2024), 9 of the 13 plant species used in traditional wedding rituals remain stable, while one species is at risk of decline and three species—*Nypa fruticans*, *Uncaria gambir*, and *Areca catechu*—are currently in decline (*Nicotiana tabacum* is considered at risk). According to the Indonesian Ministry of Environment and Forestry Regulation No. P106 (2018), only *A. catechu* was categorized as a protected species. However, concerns have emerged

Table 1 Plants used in wedding ritual ceremonies by the Dayak Kanayatn community in Ambawang Village, Kubu Raya Regency, West Kalimantan Province, Indonesia

Family	Plant name (Local name; Scientific name)	Used parts	Traditional ritual			Plant meaning in traditional ritual	Collection sites
			<i>makan pulut tunang</i>	<i>makan pulut rakeh</i>	<i>ngelulus adat</i>		
Poaceae	Paddy (“padi dana”; <i>Oryza sativa</i>)	Seed	√	√	√	Offerings for ancestral spirits	Paddy field
Poaceae	Glutinous paddy (“padi poe”; <i>Oryza sativa</i> var. <i>glutinosa</i>)	Seed	√	√	√	Offerings for ancestral spirits	Paddy field
Asparagaceae	Cordyline (“kenjuank”, <i>Cordyline fructiosa</i>)	Leaf	√	√	√	A medium to summon spirits	Home yard
Piperaceae	Betel leaf (“sirih”; <i>Piper betle</i>)	Leaf	√	√	√	Offerings for ancestral spirits	Home yard
Arecaceae	Nypa palm (<i>Nypa fruticans</i>)	Leaf	√	√	√	Offerings for ancestral spirits	Home yard
Solanaceae	Tobacco (<i>Nicotiana tabaccum</i>)	Leaf	√		√	Offerings for ancestral spirits	Local shop
Magnoliopsida	Gambier (“gamber”; <i>Uncaria gambir</i>)	Leaf			√	Offerings for ancestral spirits	Garden
Arecaceae	Areca nut (“pinang”; <i>Areca catechu</i>)	Fruit	√		√	Offerings for ancestral spirits	Home yard
Arecaceae	Coconut (“kelapa”; <i>Cocos nucifera</i>)	Leaf, fruit	√	√	√	Offerings for ancestral spirits, a medium to summon spirits	Home yard
Poaceae	Bamboo (“Buluh”; <i>Bambusa vulgaris</i>)	Stem	√		√	A vessel for offerings to ancestral spirits	Forest
Dilleniaceae	Dillenia (“Simpur”; <i>Dillenia suffruticosa</i>)	Leaf	√		√	A vessel for offerings to ancestral spirits	Forest
Musaceae	Banana (“pisang”; <i>Musa x paradisiaca</i>)	Fruit, Leaf	√		√	A tribute to the souls of the deceased	Garden
Zingiberaceae	Turmeric (“Engkunyit”; <i>Curcuma longa</i>)	Rhizome	√		√	Natural (rice) dye	Home yard

regarding the conservation of these plants, as forests are no longer the main collection sites; six species are now obtained from home yards, and only two from nearby forests. Tobacco must be purchased from local shops because it is no longer available in the surrounding area. Although most species remain stable, the decline of several key plants raises ecological and cultural concerns. Saputra (2020) highlighted that local wisdom plays a crucial role in maintaining ecological balance, supporting both environmental sustainability and cultural continuity. The decreasing availability of ritual plants threatens not

only ecosystem stability but also the preservation of traditional practices, emphasizing the need to integrate traditional ecological knowledge into conservation strategies to safeguard both biodiversity and cultural heritage.

In conclusion, the wedding rituals of the Dayak Kanayatn community in Ambawang Village exemplify the inseparable connection between cultural heritage and ecological knowledge. This study shows that the documented wedding rituals still involve symbolic acts as well as family and community participation, which are central to the cultural identity of the Dayak

Table 2 Conservation status of plants used in wedding rituals of Dayak Kanayatn community in IUCN

Plant Species	Conservation Status in IUCN		
	Stable	Risk of Decline	Declining
Paddy ("padi dana"; <i>Oryza sativa</i>)	√		
Glutinous paddy ("padi poe"; <i>Oryza sativa</i> var. <i>glutinosa</i>)	√		
Cordyline ("kenjuank"; <i>Cordyline fructiosa</i>)	√		
Betel leaf ("sirih"; <i>Piper betle</i>)	√		
Nypa palm (<i>Nypa fruticans</i>)			√
Tobacco (<i>Nicotiana tabacum</i>)		√	
Gambier ("gamber"; <i>Uncaria gambir</i>)			√
Areca nut ("pinang"; <i>Areca catechu</i>)			√
Coconut ("kelapa"; <i>Cocos nucifera</i>)	√		
Bamboo ("Buluh"; <i>Bambusa vulgaris</i>)	√		
Dillenia ("Simpur"; <i>Dillenia suffruticosa</i>)	√		
Banana ("pisang"; <i>Musa x paradisiaca</i>)	√		
Turmeric ("Engkunyit"; <i>Curcuma longa</i>)	√		

Kanayatn. In addition, the integral use of various plant species reflects spiritual meanings and reinforces the community's identity and relationship with its natural environment. As the availability of these key plants faces increasing threats, conservation efforts must incorporate traditional ecological wisdom to preserve both the biodiversity and cultural continuity. This integrated approach aligns with broader findings in ethnobotanical research, emphasizing the role of Indigenous knowledge in sustainable environmental management (Berkes *et al.* 2000; Maffi 2005; Posey 1999). Protecting these valuable traditions, including their botanical resources, will foster resilience within the Dayak Kanayatn community and contribute to the global movement toward holistic conservation practices that respect cultural diversity and ecological integrity.

CONCLUSION

The traditional wedding ceremonies of the Dayak Kanayatn community in Ambawang Village remain well-preserved and deeply rooted in spiritual meaning, with 13 plant species playing vital roles as symbols of the interconnectedness between humans, nature and ancestral spirits. The declining availability of several key species underscores the need for conservation efforts grounded in local wisdom to ensure the sustainability of both biodiversity and cultural heritage in the region.

ACKNOWLEDGMENTS

The authors extend their sincere gratitude to the traditional leaders, community, and local authorities of Ambawang Village for their excellent cooperation and strong support throughout the research process.

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