

Biological resources utilization in *grebeg maulud* ceremony in Surakarta City, Indonesia

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³Plant and Invertebrate Taxonomy and Its Applications Unit Group, Biodiversity Program, Walai Rukhavej Botanical Research Institute, Mahasarakham University. Kantarawichai District, Maha Sarakham 44150, Thailand

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Abstract. *Ayuningtyas HR, Nabila I, 'Azizah HPN, Andewi LC, Saensouk S, Setyawan AD. 2024. Biological resources utilization in grebeg maulud ceremony in Surakarta City, Indonesia. Asian J Ethnobiol 7: 43-49.* Indonesia is a country of diverse nature, culture, and traditions in each region. Implementing traditional ceremonies is closely related to utilizing natural resources, both plants and animals, in the surrounding area. The *sekaten* or *grebeg maulud* is a ceremony which is often held every month of Rabi'ul Awal, involves *gunungan* elements in the form of crops contested by the community. This research was conducted in Surakarta City, Central Java, Indonesia, from November to December 2023, in Mojosongo Village, Keprabon Village, and Baluwarti Village. This study aims to determine the understanding of the community regarding the *grebeg maulud* ceremony, identify the biodiversity used in *grebeg maulud*, and determine the utilization of these resources in people's lives. The methods used in this research are survey methods, group discussions, ethnographic studies, key informant interviews, and the surrounding community interviews. The important thing that becomes the basis of this research is the utilization of crops by the surrounding community, which is calculated using the Index of Cultural Significance (ICS) value calculation. People in Mojosongo, Keprabon, and Baluwarti Villages utilize several species for *grebeg maulud* activities, including 2 species of fauna and 19 species (taxa) of flora. The parts of the fauna utilized are eggs and meat; the most utilized part of the flora is the fruit.

Keywords: *Grebeg maulud*, *gunungan*, natural resources, tradition, utilization

INTRODUCTION

Indonesia is a country that has a variety of natural diversity, cultures, and traditions with uniqueness in each region. Culture is a phenomenon closely related to the behavior and actions of the people who support or live it. It has become a reflection and symbol of the region in Indonesia (Farida and Shofi'unnafi 2020). Culture can be in the form of real objects and community behavior, including behavior patterns, language, art, religion, and others which are used to help humans live social lives. Traditional ceremonies are part of a cultural heritage that are routinely carried out for generations by the community (Setyawan et al. 2023).

Traditional ceremonies are a form of culture. Implementing traditional ceremonies is generally closely related to using and utilizing natural resources, both plants and animals, in the surrounding area. Because traditional ceremonies are part of human cultural products on a practical level, they must be inseparable from using natural resources such as flora and fauna in the surrounding environment (Mutaqin et al. 2018). A field of science that studies the knowledge of a community or tribal group regarding the utilization of biological natural resources and their ecosystems is referred to as ethnobiology (Purwanto

2021). Ethnobiological research is conducted to scientifically analyze biodiversity values by applying science and technology so that the local communities' wisdom in managing natural resources and the environment can be scientifically accounted for. Ethnobotany, as a branch of ethnobiology, studies the direct relationship between humans and plants regarding utilization and management in traditional societies or indigenous tribal communities (Fauziah et al. 2017). Ethnobotany potentially opens a community's traditional knowledge system toward the diversity of biological resources, culture, and environmental conservation (Tapundu and Anam 2015). Meanwhile, human knowledge about animal resources around them and science that studies the relationship between humans and animals in the local sociocultural context is an understanding of ethnozoology (Nikmatila et al. 2023).

One of the traditional ceremonies in Indonesia is *sekaten* or *grebeg maulud*, which is held every month of Rabi'ul Awal and is usually the third month in the lunar calendar. *Sekaten* is a term from the Javanese community to refer to the Islamic religious celebration ceremony commemorating the Prophet Muhammad's birthday, usually carried out in several cities in Indonesia, especially Yogyakarta and Surakarta. Not only a religious celebration,

grebeg maulud is also an Indonesian cultural heritage that has been a tradition of the Surakarta Palace for a long time. This ceremony can be a form of appreciation and preservation of cultural heritage and potentially become cultural tourism in this modern era (Pramusinto and Wahono 2020). It contains moral values that can serve as guidelines in realizing civilized human life by respecting and preserving the ancestors' culture. Although today, the *sekaten* ceremony is only considered as the public poorly understands a tradition with tourism value and its meaning, it displays a form of harmony between religion and culture (Rahayu et al. 2020).

In the *grebeg maulud* ceremony, *gunungan* will be contested by those who attend the events. There are various types of crops arranged in the *gunungan*. These crops are very commonly used by the community in everyday life (Amoro et al. 2020). The community utilizes existing crops in various ways, such as using them to improve the economy by selling them as processed food (Ridzal and Hasan 2019), for daily food needs, companion needs, and as traditional medicine (Jamshidi-Kia et al. 2017). The utilization of the crops produced can continue to increase as the population increases (Begna 2021).

There are several problems found regarding the *grebeg maulud* ceremony, including (i) public knowledge related to *grebeg maulud* is decreasing, and it is difficult to find information from scientific sources; (ii) An ethnobiological study of the natural resources used in *grebeg maulud* has never been conducted before. Therefore, this study aimed to collect information related to the *grebeg maulud* ceremony, identify the biodiversity used in *grebeg maulud*, and determine the utilization of these resources in people's

lives. Thus, public knowledge related to *grebeg maulud* can increase, and awareness of cultural preservation is maintained. In addition, knowledge related to ethnobiology in *grebeg maulud* is important for the community because it is useful to know the potential and sustainable use of biological resources in *grebeg maulud*.

MATERIALS AND METHODS

Research area

This research was conducted in Surakarta City, Central Java, Indonesia from November to December 2023. The research locations are Mojosongo Village (*kelurahan*) with coordinate points (-7.54320, 110.84186), Keprabon Village with coordinate points (-7.56843, 110.82250), and Baluwarti Village with coordinate points (-7.58010, 110.82812) (Figure 1). According to the Information Management and Documentation Officer of Surakarta City (2023), Mojosongo Village has an area of 532.927 hectares, with a population of 49,253 residents. Keprabon Village has an area of 46.72 hectares, with 3,122 residents. Baluwarti Village has an area of 40.70 hectares, with 7,478 residents. Mojosongo Village is about 4.4 km from Surakarta Hadiningrat Sunanate Palace (the cultural center of Javanese people); Keprabon Village is near Pura Mangkunegaran and about 2 km from Surakarta Hadiningrat Sunanate Palace. Meanwhile, Baluwarti Village is one of the villages located within the Surakarta Hadiningrat Sunanate area.

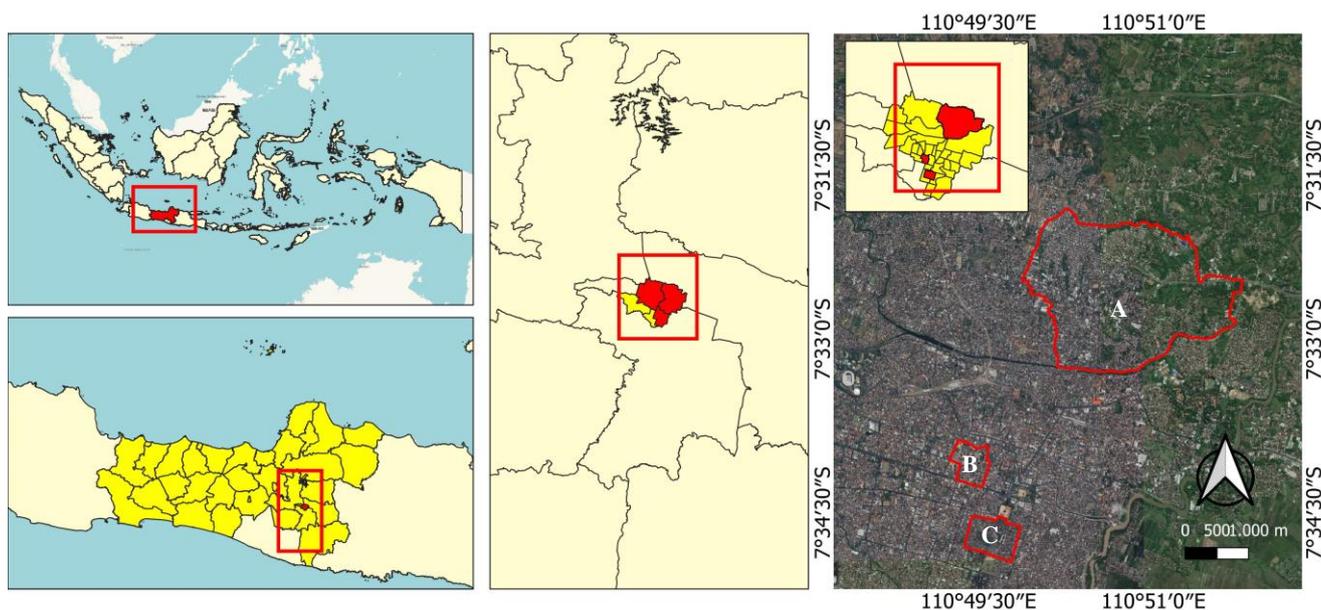


Figure 1. Research locations in Surakarta City, Indonesia: A. Mojosongo Village, B. Keprabon Village, and C. Baluwarti Village

Procedures

Selection of informants

The methods used in this research were survey methods, group discussions, ethnographic studies, key informant interviews, and the surrounding community. The informants totaled 65 people, consisting of 5 key informants and 60 general informants aged 19 to 70 years. Key informants can be used as the center of information about this research. Key informants are the main source of information related to these issues under study (Suriani and Jaliani 2023). Meanwhile, general informants were used as sources of information on the utilization of species. The sample was taken randomly with a diverse demographic background of informants and data on the utilization of crop products in *gunungan grebeg maulud* from each informant.

Data collection

Two types of data were collected: primary data and secondary data. Primary data were obtained through interviews with key informants and the surrounding community (Rinaldi and Ardianto 2022). Interviews with key informants were conducted to gather in-depth information about the history of the utilization, the series of events, the philosophy, and the meaning of *gunungan*. Interviews with the community were conducted to gather information about the utilization of crops and their knowledge about the *sekaten* or *grebeg maulud* traditional ceremonies. Secondary data included demographic data and education level. The literature used in this research comes from various sources, such as journals.

Data analysis

Moreover, the important information in this research is the utilization of crops leading to the utilization of the surrounding community for personal and economic use. Then, for the crops that have been obtained, the Index of Cultural Significance (ICS) value is calculated based on the data obtained from the people who have been interviewed. The ICS will show each species' importance to the community's needs. According to Ratnani et al. (2021), the formula that can be used is as follows:

$$ICS = \sum_{i=1}^n (q \times i \times e) u_i$$

Because each species has different uses, it can be calculated with the following equation:

$$ICS = (q_1 \times i_1 \times e_1) + (q_2 \times i_2 \times e_2) + (q_3 \times i_3 \times e_3) \dots + (q_n \times i_n \times e_n)$$

Where:

q: Utilization of the species. 5: Staple food, 4: Complementary food (vegetables, fruits, snacks, snacks), 3: Food additives (spices), medicines, 2: Ritual, recreation, decoration, container/packaging, and 1: Only know and do not use.

i: Intensity of use. With information, 5: every day, 4: 2-3x a week, 3: once a week, 2: once a month, 1: only on special celebrations.

s: Importance of species. With information, 2: first choice, no second, 1: possible choice, and 0.5: last choice.

RESULTS AND DISCUSSION

Respondent demographic data

The respondents in this research were 65 informants from Mojosongo Village, Keprabon Village, and Baluwarti Village, Surakarta (Table 1). There were 29 male informants and 36 female informants. The highest age frequency was in the 46-55 age group, with 14 informants (21.54%). Respondents occupations are 17 entrepreneurs, 15 merchants, 6 laborers, 18 housewives, 6 civil servants, and 3 other professions. Respondents educational levels were (15.38%) elementary school, (23.08%) junior high school, (44.62%) senior high school, and (16.92%) university level.

Grebeg maulud ceremony and symbolic meaning of *gunungan*

The history of the *grebeg maulud* ceremony in Surakarta began before Islam entered the island of Java, around the 7th century (Agustin 2019). At that time, people already believed in God, and there was already a *grebeg* ceremony which became a ritual to express gratitude for the harvest. *grebeg maulud* was first held during the leadership of Sultan Agung in the Islamic Mataram Kingdom. *Grebeg* comes from the word *gemebreg*, which means noisy or boisterous; this meaning describes the atmosphere during the *grebeg* event when the community will be noisy or boisterous to grab the *gunungan* that will be distributed (Pratisara 2020). Meanwhile, *grebegan* means inviting the community. The purpose of the *grebeg maulud* ceremony is to respect, welcome, and celebrate the birth of the Prophet Muhammad as a role model.

Table 1. Respondent demographics

Parameter	Specification	Freq.	Percentage
Gender	Male	29	44.62
	Female	36	55.38
Age	15-25	8	12.31
	26-35	12	18.46
	36-45	10	15.38
	46-55	14	21.54
	56-65	11	16.92
	66+	10	15.38
Profession	Entrepreneur	17	26.15
	Merchant	15	23.08
	Laborer	6	9.23
	Housewife	18	27.69
	Civil Servant	6	9.23
	Others	3	4.62
Education	Elementary School	10	15.38
	Junior High School	15	23.08
	Senior High School	29	44.62
	University Level	11	16.92

Sekaten is one of the terms used by Javanese people to refer to the celebration of the birth of the Prophet Muhammad (Al-Fajriyati 2020). Before the *grebeg maulud* ceremony is held, there is a *sekaten* celebration marked by a night market as a means of recreation and shadow puppet shows (Farida and Shofi'unnafi 2020). In addition, there are also traditional dance performances, recitation of *sholawat* and prayers done together, as well as a procession around the city with chariots and *keris*, which involves sultans, soldiers, and officials, as well as people who want to participate in that moment. After the *sekaten* celebration, the highlight is the *grebeg maulud*, a *kirab* procession led by the Sultan of Surakarta Kasunanan (Dasanti 2020). In this procession, various decorations, royal equipment, traditional elements including gamelan and dances, and *gunungan* containing Surakarta's products are prayed for and paraded around the palace to be contested by the community. People believe that getting the *gunungan* will bring blessings to them. They seek this blessing for peace of life, increased welfare, and authority (Wardhani et al. 2021). During the procession, the Sultan of Surakarta Kasunanan usually provides basic food or other basic needs to the community assistance. That reflects the concepts of social justice and responsibility that are part of Islamic teachings and Javanese traditional beliefs. Until now, the *sekaten* and *grebeg maulud* traditions are still implemented and preserved in the Surakarta Hadiningrat Sunanate.

Every tradition in Indonesia has deep meanings and symbols. One that has similarities to the *grebeg maulud* is the *hang woja* traditional ceremony in Mangarai District. This ceremony is a form of gratitude and celebration of the change of seasons and years. This ceremony also has several processions. The difference is that *grebeg maulud* has been acculturated with Islamic religious culture, while *hang woja* still maintains local beliefs, this ceremony is a tribute to God (*Mori*), ancestors (*Empo*), nature, dan fellow humans (Ikin et al. 2023).

The research conducted in three villages shows people have almost the same understanding of the *sekaten* or *grebeg maulud* ceremony. People around the Surakarta Hadiningrat Sunanate Palace know more about the *grebeg maulud* ceremony than people who live far from the palace, starting from the history, meaning, and series of events. This is because people who live around the palace tend to follow the activities more often than those who live far from the palace.

Gunungan in the *grebeg maulud* ceremony symbolizes fertility and prosperity. The people of the three villages interpret the *gunungan* as a gratitude for the crops produced and a form of alms from the upper class to the community. *Gunungan* are made in pairs, which means that everything is created in pairs, good and bad, as well as men and women. Two pieces of *gunungan* will finally leave the palace from Sasono Sewoko to Sitinggil, Pagelaran, North Square, and end at the Great Mosque. In the Great Mosque, both the people will contest *gunungan*, and each will compete to get as many products as possible. This is because people who follow this tradition believe that the products in the *gunungan* hold a lot of sustenance and blessings (Farida and Shofi'unnafi 2020). *Gunungan*

Surakarta consists of two types of *gunungan*: *jaler* (male symbolism) and *estri* (female symbolism). It is known that the *gunungan jaler* are shaped like a *tumpeng*; the frame is made of woven wire/bamboo, covered with banana leaves, shaped like *tumpeng robyong* consisting of ingredients: sugar cane, long beans, red chili, and eggplant. Everything is arranged on a *tumpeng* frame until all parts of the frame are covered. In comparison, the *gunungan estri* is shaped like a *motha* umbrella, made of *rengginang*, a cracker-like food made from glutinous rice as big as a plate, given a stalk and arranged until the framework is completely covered. Then, the top part is arranged with bananas and *jenang dodol* (Pramusinto and Wahono 2020).

The two *gunungans* contain crop products and various spices; the compositions of raw materials, processed food, and skeletons to the base of the *gunungan*, and the crop products from their earth. The crop products comprise long beans, carrots, eggplants, cucumbers, red chilies, and *oyong*, kale. Of all these vegetable types, added other products include fruit, tubers, and some leaves and stems. Vegetables that must be present in the *gunungan* are long beans and carrots. Long beans are the most numerous, expressing *aja ninggal kacang lanjaran*, meaning do not leave the existing tradition. At the same time, carrots have a meaning as a symbol and an effort to develop an awareness of God. Sugar cane expressing *mantebing kalbu* means mutual respect and love for fellow humans. There are also additional fruits such as plantain and coconut. The plantain symbolizes that the king, as the highest leader, must be able to protect the people under him. At the same time, the coconut means that everyone shows their awareness and concern for God for expecting progress and development. There are also chicken or duck eggs that must be present and rice that comes from ricefield. Eggs can represent the beginning of human life, and rice represents human life needs.

In the *gunungan*, there are also various flowers, such as roses, which means *manunggaling warga*, the unity of the family. There is also bamboo as the frame of the *gunungan*, which means respect and love for the family and a form of unity from all societal elements. Moreover, as the base, banana leaves are usually used, as well as pandanus and betel leaves as decorations. In addition to raw crop products, there are various processed foods in the *gunungan*. The processed foods include *rengginang*, made from glutinous rice; *apem* cake, made from rice flour; *jenang*, made from rice flour and coconut milk; *dodol*, made from sticky rice flour and coconut milk; and *cenil*, made from black sticky rice flour. Just like other raw materials, processed foods also have various meanings, such as *rengginang*, which is assembled using ropes (*dironce*), which means that the whole community must continue to be united. In addition, *apem* cake also shows unanimity in seeking life perfection or what is commonly called *keplenging rasa handayoh kasampurnaning urip*.

Indonesia has many traditions, and some have a similar meaning to the *gunungan* event in the *grebeg maulud*. One of them is the *maras taun* tradition on Belitung Island. This tradition expresses gratitude for the abundance of farmers' crops on Belitung Island. The difference is that the *grebeg*

maulud gunungan consists of crops with raw materials and various processed foods. The *maras taun* tradition has a large and a small *lepat* cake. The big *lepat* cake will be cut and distributed by the local leader, meaning that every leader must serve his people; the small *lepat* cake will be contested by the community there as a form of joy and gratitude for the crops obtained during the past year (Juniarti 2022). This is also similar to the *grebeg maulud* tradition, the crop products obtained by the community are spread on their rice fields or agricultures in the hope that the future results will be more abundant.

Biological ingredients utilized for grebeg maulud ceremony

Several plant and animal category materials from various families and habitus are used in *gunungan*. Table 2 and Figure 2 show the habitus data, including 10% bipedal animals, while in plants there are 48% herb habitus, 33% shrub habitus, 5% tree habitus, and 5% creep habitus. The highest percentage of habitus used by the community is herb habitus, with a percentage of 48%. There are 2 families in the animal category (Figure 3), 50% of the Anatidae and 50% of the Phasianidae. Meanwhile, in the plant category there are 10 families (Figure 4), 16% of the Cucurbitaceae, 16% of the Fabaceae, 11% of the Graminae, 11% of the Musaceae, 11% of the Poaceae, 11% of the Rosaceae, 5% of the Pandanaceae, 5% of the Piperaceae, and 5% of the Umbelliferae. It is known that the percentage of family utilization in the animal category by the community in *gunungan* is the same. In comparison,

the highest percentage of families utilized by the community in the plant category are Cucurbitaceae and Fabaceae with the same percentage of 16%. The lowest percentage of family utilization is Pandanaceae, Piperaceae, and Umbelliferae, with a percentage of 5% each.

Figure 5 shows the animal and plant parts used, there are egg with percentage of 5%, egg and meat is 5%, fruit 37%, seed 21%, leaf 16%, trunk 11%, flower 11%, and root 5%. The highest utilization of plant parts is in the fruit, with a percentage of 37%, and the lowest is the root, with a percentage of 5%. The biological materials from animals and plants used in the *gunungan* are obtained from the palace garden, and a small portion is purchased from the market.

Javanese society is very strong with the value of tradition and local wisdom, which is known from various forms of local wisdom ceremonies as an expressions of belief and appreciation for the almighty creator, such as local wisdom is *sadranan* (Herayanti et al. 2023). Each traditional ceremony has a different context, purpose, and symbolism, so the supporting elements differ. Compared to the *sadranan* ceremony in Surakarta City, *sekaten* and *grebeg maulud* have used more animals and plants because the ceremony uses elements like *gunungan*. It is known that the *gunungan* element contains various types of plants from the crop products of Surakarta City ranging from vegetables, fruits, and also some livestock (Pramusinto and Wahono 2020).

Table 2. Species used for *grebeg maulud* by the people of Mojosongo Village, Keprabon Village, and Baluwarti Village of Surakarta City, Indonesia

Family	Scientific name	Local name	Habitus	Part used	ICS value	Category
Fauna						
Anatidae	<i>Anas platyrhynchos</i> f. <i>domesticus</i> L.	<i>Bebek</i>	Bipedal	Egg	11	Low
Phasianidae	<i>Gallus gallus</i> subsp. <i>domesticus</i> L.	<i>Ayam</i>	Bipedal	Egg, Meat	29	Medium
Flora						
Cucurbitaceae	<i>Cucumis sativus</i> L.	<i>Timun</i>	Herb	Fruit	16	Low
Cucurbitaceae	<i>Luffa acutangula</i> L.	<i>Oyong</i>	Herb	Fruit	12	Low
Cucurbitaceae	<i>Glycine max</i> L.	<i>Kedelai</i>	Herb	Seed	36	Medium
Fabaceae	<i>Cocos nucifera</i> L.	<i>Kelapa</i>	Tree	Fruit	18	Low
Fabaceae	<i>Saccharum officinarum</i> L.	<i>Tebu</i>	Shurb	Trunk	25	Medium
Fabaceae	<i>Vigna unguiculata</i> L.	<i>Kacang panjang</i>	Herb	Fruit	20	Medium
Graminae	<i>Oryza sativa</i> var. <i>glutinosa</i> (Lour.) Körn.	<i>Ketan putih</i>	Herb	Seed	6	Low
Graminae	<i>Oryza sativa</i> var. <i>glutinosa</i> (Lour.) Körn.	<i>Ketan hitam</i>	Herb	Seed	5	Low
Musaceae	<i>Musa paradisiaca</i> L.	<i>Pisang raja</i>	Herb	Fruit	18	Low
Musaceae	<i>Musa paradisiaca</i> L.	<i>Pisang</i>	Herb	Leaf	8	Low
Pandanaceae	<i>Pandanus amaryllifolius</i> Roxb.	<i>Daun pandan</i>	Shurb	Leaf	15	Low
Piperaceae	<i>Piper betle</i> L.	<i>Daun Sirih</i>	Creep	Leaf	5	Low
Poaceae	<i>Oryza sativa</i> L.	<i>Padi</i>	Herb	Seed	72	High
Poaceae	<i>Gigantochloa apus</i> (Schultz) Kurz	<i>Bambu</i>	Shrub	Trunk	4	Very low
Rosaceae	<i>Rosa gallica</i> L.	<i>Mawar merah</i>	Shrub	Flower	5	Low
Rosaceae	<i>Rosa alba</i> L.	<i>Mawar putih</i>	Shrub	Flower	5	Low
Solanaceae	<i>Capsicum annuum</i> L.	<i>Cabai merah</i>	Shrub	Fruit	60	High
Solanaceae	<i>Solanum melongena</i> L.	<i>Terong</i>	Shrub	Fruit	18	Low
Umbelliferae	<i>Daucus carota</i> L.	<i>Wortel</i>	Herb	Root	25	Medium

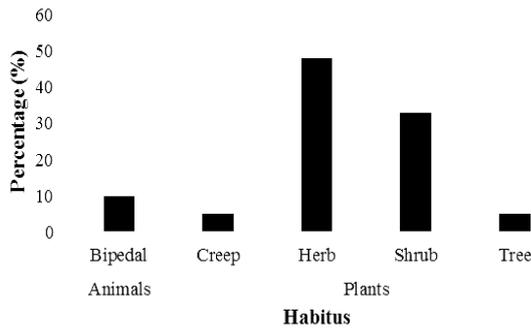


Figure 2. Percentage chart of animals and plants habitus used in grebeg maulud

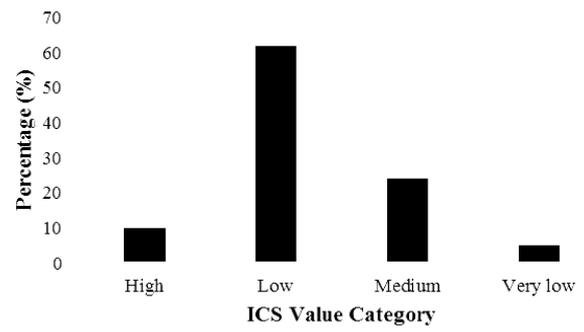


Figure 6. Percentage chart of ICS value categories

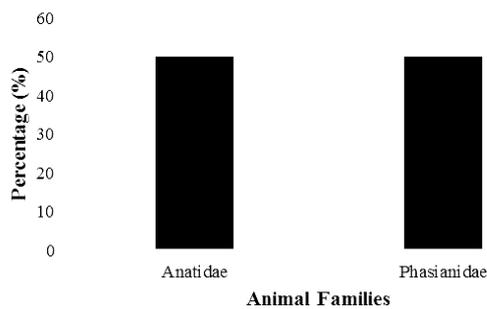


Figure 3. Percentage chart of animal families used in grebeg maulud

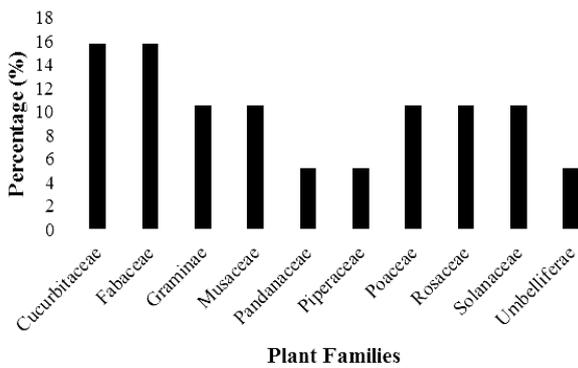


Figure 4. Percentage chart of plant families used in grebeg maulud

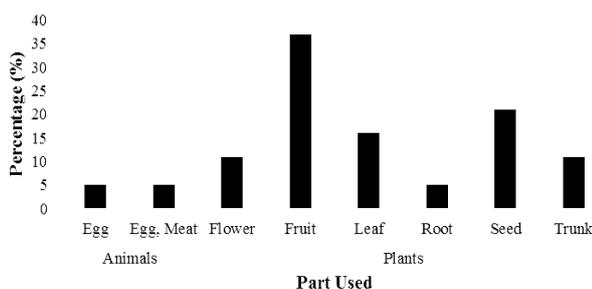


Figure 5. Percentage chart of animals and plants part used in the grebeg maulud tradition

Index of Cultural Significance (ICS)

The percentage of ICS has 62% ICS low categories, 24% medium, 10% high, and 5% very low categories (Figure 6). The highest ICS value category in plant material is in the low category, with a percentage of 62%, and the lowest is in the very low category, with a percentage of 5%. A high ICS value number represents a species with a high consumer or use value, while a low ICS value number represents a species with a low consumer and use value (Has et al. 2020). Bamboo (*Gigantochloa apus*) has the lowest ICS value of 4, while rice (*Oryza sativa*) and red chili (*Capsicum annum*) have the highest ICS value of 72 and 60 (Table 2). The highest value can be obtained because rice is a staple food that can be utilized as the main ingredient, complementary food ingredients such as crackers, and also be used as an ingredient in making *beras kencur* herbal medicine. In addition, red chili peppers are also used as a complementary food, a vegetable, and an additional ingredient or spice. Meanwhile, bamboo has the lowest ICS value because the community rarely utilizes it; it is only used as crafts and building materials less desirable to the community.

The number generated from the calculation of the ICS can show the level of importance of each plant species utilized by the community (Has et al. 2020). ICS can also be used to measure the value of plants for the community in providing important input in programs that have goals for biodiversity conservation; in other words, this calculation can be used to consider the management of the calculated resources (Helida et al. 2015). After the calculation, the resulting value will determine what types of natural resources are prioritized for conservation. When the ICS value is high, conservation efforts need to be prioritized. Therefore, conservation enforcement can be done by observing the carrying capacity supporting conservation success. Conservation can minimize genetic erosion or species extinction due to high utilization (Ismail et al. 2023). The community can cultivate natural resources independently, such as planting banana trees, roses, and chili peppers; they can also replant natural resources that have been utilized. Increasing the soil fertility where these plants are conserved is crucial (Sutraningsih et al. 2019). In general, conservation will make natural resources sustainable.

In conclusion, the *grebeg maulud* ceremony is still preserved and maintained by the people in Surakarta until now. A peak activity in the series of *grebeg maulud* events, namely *gunungan*, contains crop products with various species. People in Mojosongo, Keprabon, and Baluwarti Villages utilize several species for *grebeg maulud* activities, including 2 species of fauna and 19 species (taxa) of flora. The parts of the fauna are eggs and meat; the most utilized part of the flora is the fruit. The species with the highest ICS value is rice (*O. sativa*), with an ICS value of 72 and is included in the high category. The species with the lowest ICS value is bamboo (*G. apus*) with an ICS value of 4 and is included in the very low category. From the ICS value, it can be observed that rice is the most important species in the utilization of *grebeg maulud* activities.

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