# Approximation of the socio-cultural importance of the Moriche palm tree (*Mauritia fleuxuosa* L.F.) in the Wacoyo indigenous community (Sikuani) in the municipality of Puerto Gaitán, Colombia

Aproximación de la importancia socio- cultural de la palmera Moriche (*Mauritia fleuxuosa* L. F.) en la comunidad indígena Wacoyo ( Sikuani) en el municipio de Puerto Gaitán, Colombia

Aproximação da importância sociocultural da palma de Moriche (*Mauritia fleuxuosa* L. F.) na comunidade indígena Wacoyo (Sikuani) no município de Puerto Gaitán, Colômbia

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## Abstract

The Moriche palm tree (*Mauritia flexuosa* L.F) is a natural resource that offers a range of resources, such as insect larvae, raw materials for beverages and fibers; as a result, local communities take advantage of these trees for the economic income and welfare of their families. For example, the Sikuani people, who belong to the communities that integrate the "Resguardo" Wacoyo, own one of the best-preserved morichales (ecosystems in which the palm is abundant) of the Puerto Gaitán municipality of Meta. The aim of this study was to understand the exploitation methods, usage and products that are associated with the moriche palm tree in the communities of the Sikuani people who inhabit the "resguardo." It was found that, through the use of the leaves, shoots and fruits, these communities obtain raw materials for making crafts and a fermented beverage. The forms of exploitation have a low impact on the natural environment because a period of recovery time is allotted for the palm trees. Finally, it can be concluded that the Sikuani people seek to safeguard their morichales based on their ancestral knowledge about the use and management of this type of resource.

Key words: Moriche, Wacoyo, natural fibers, crafts, "resguardo".

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#### Resumen

La palma de moriche (*Mauritia flexuosa* L.F) es un recurso natural que ofrece una importante gama de recursos, como alimentos y fibras que permiten a las comunidades locales aprovecharlas y así tener ingresos económicos y bienestar para sus familias, como lo vienen realizando los pobladores Sikuani que hacen parte de las comunidades que integran el resguardo Wacoyo, que poseen uno de los morichales mejor conservados del municipio de Puerto Gaitán - Meta. El objetivo de este estudio está encaminado a conocer los métodos de aprovechamiento, usos y productos que se obtienen de la palma de moriche por parte de las comunidades del pueblo Sikuany que habitan en el resguardo. Entre los resultados se encontró que a partir del uso de hojas, cogollos y frutos, estas comunidades obtienen materia prima para la elaboración de artesanías y bebida fermentada. Las formas de aprovechamiento tiene bajo impacto en el sistema natural, debido a que permiten que la planta tengo periodos de tiempo para que se recupere. Finalmente se concluye que los habitantes del pueblo Sikuani buscan resguardar los morichales a partir de sus conocimientos ancestrales en el uso y manejo de este tipo de recursos.

Palabras clave: Artesanías, Moriche, Resguardo Wacoyo, Fibras naturales.

#### Resumo

A palma de moriche (*Mauritia flexuosa* L.F) é um recurso natural que oferece uma gama de recursos importantes, tais como alimentos e fibras que permitem que as comunidades locais possam aproveitá-las e, assim, ter renda e bem-estar para as suas famílias, como estao sendo feitas por pessoas Sikuani que fazem parte das comunidades que compõem a reserva Wacoyo, que possuem um dos palmeiral mais bem preservadas do município de Puerto Gaitán - Meta. O objetivo do presente estudo tem como objetivo conhecer os métodos de exploração, os usos e os produtos obtidos da palma moriche pelas comunidades Sikuany que vivem na reserva. Os resultados revelaram que através do uso de folhas, botões e frutas, essas comunidades podem obter matérias-primas para fazer artesanato e bebida fermentada. As formas de exploração tem baixo impacto sobre o sistema natural, porque eles permitem que a planta possa ter períodos de tempo para se recuperar. Conclui-se que os moradores de reserva Sikuani procuram proteger os palmerais a partir de seu conhecimento ancestral no uso e gestão de tais recursos.

Palavras chave: Artesanato, moriche, reserva Wacoyo, fibras naturais.

## Introduction

The Morichal ecosystem, matajolitsau or kuabo in the Sikuani language, is known for offering significant ecosystem services, such as water regulation, carbon sequestration, and habitats and food for birds and mammals (Brightsmith and Bravo, 2006). Additionally, Del Castillo et al., (2006) and Velásquez et al., (2008) highlight the fact that the moriche palm, kuaboto or inojoboto in the Sikuani language, is one of the nontimber forest resources with the greatest economic value. The leaves, fruits and stems of the moriche are all harvested and used by the Sikuani to make crafts, ceilings and walls; therefore, this species should be considered a strategic resource (Galeano, 1991; Lasso et al., 2013; Sampaio et al., 2008). However, in some regions, harvesting procedures, such as intensive leaf harvesting and cutting down the palm for fruit gathering, among others, threaten the sustainability of the resource. Thus, these practices minimize the services that the moriche palm has been delivering to the communities where it can be found (Manzi and Coomes, 2009), especially the indigenous communities that sustain a close relation with the natural system they use for hunting, fruit/fiber gathering and small farming ("conucos") activities (Gilmore et al., 2013).

Sikuani people are settled in the following departments: Vichada (61.25%), Meta (25.1%) and Arauca (4.5%) and make up to 1.4% of Colombia's total indigenous population (DANE, 2010). Some of the Sikuani people live in settlements known as "resguardos." A "resguardo" is a legal territorial division established via a property title that warrants an indigenous group or groups the legal ownership over a territory that is communally owned and traditionally inhabited by them. The management of the resguardo and its internal life and livelihood are conducted by an autonomous organization covered by the native jurisdiction and its own normative system (Decreto 2164/1995, Art. 21). The resguardo also holds an unalienable, inalienable, imprescriptible and non-seizable status (Colombian Political Constitution, arts. 63 and 329).

These communities have a close relationship with the *morichal* ecosystem that integrates their territory; it is a source of food and raw materials for dwellings and crafts that are sold to visitors and in nearby urban centers. In Colombia, the native palms and the ecosystems where they are integrated have been studied. There have been extensive studies on the biological and ecological aspects of the *moriche* palm and its uses and on the biodiversity that is associated with its natural

systems, mostly in the Amazonian region (Galeano, 1991; Garzón and Leyva, 1993; Forero et al., 2003; Castaño et al., 2007; Galeano and Bernal, 2010, Trujillo et al., 2011; Lasso et al., 2013). The morichales provide a wide variety of ecosystem services; among these services, we highlight the regulation services and their contribution to the improvement of the soil quality because their adaptation to acid and swampy soils enables the Moriches to provide the soils with water and nutrient retention properties. The morichales also possess a great potential for basin restoration of morichal-associated rivers that have been degraded by fires and can act as carbon dioxide sinks, with an average sequestration of 600 tons/hectare (González, 2010).

This ethnoecological approximation sought to learn the exploitation methods, usages and products that are obtained from the *moriche* palm tree by the communities of the Sikuani people who inhabit the *"Resguardo"* Wacoyo, located in the municipality of Puerto Gaitán, Meta department, Colombia.

## Materials and methods

#### Study area

The current research was carried out in the "*Resguar-do*" Wacoyo, which is located on the right margin of the Meta River, Puerto Gaitán municipality, at the coordinates 4°18´40´´N and 72°04´46´´W, and which has an approximate area of 8050 hectares (Figure 1). The "*resguardo*" was acknowledged in Resolution 80/1992, and it comprises the communities from

La Hermosa, Santa Inés, Yuluwa, La Balsa, Guamito, Alto Palmar, Mata Palito, Walabo2, Bambú, Yopalito, Palma, Central Corocito, Manguito, Walabo1, Chaparral and Wariqueña (Ministry of Interior, 2013).

The "*Resguardo*" Wacoyo weather is warm with temperatures that range between 28 and 30°C; it exhibits monomodal rainfall, with maximum rainfall between the months of May and June and an average of 2300 mm of annual precipitation. The "resguardo" is considered as a tropical forest (bh-T) according to the Holdridge life zones system.

#### Collection and information analysis

This study stands as an approximation to the field of ethnoecology. For this field, understanding traditional knowledge requires the researchers to address the local wisdom, which is based on the complex interplay between beliefs (kosmos), knowledge (corpus) and practices (praxis), and which thus allows the ethnologist to understand the natural structure and its complex dynamics (Toledo and Barrera, 2008). For this purpose, ethnographic methods were employed, including semi-structured interviewing, participant observation and recording life stories (Clavijo and Pérez, 2014). These qualitative research tools allow in-depth investigation through the perspective of the individual or community reality (Olabuénaga, 1999; Cordero, 2012). The fieldwork was developed in the first half of 2013, and the focus group comprised 48 leaders, men and women, of the "Resguardo" Wacoyo who belong to the Sikuani people; these leaders were chosen because



Figure 1. Location of the Wacoyo "resguardo"

their work is associated with the use and management of the rainforest resources, such as timber and palms.

## **Results and analysis**

The importance and usages of the moriche palm in the Wacoyo community result from a mixture of the nature, culture and production that constitute the local knowledge; these usages are shown below in Figure 2.

# Fruits

The palm fruit is mainly used for preparing chicha (kutuira in Sikuani language), a fermented beverage that is an essential part of the community's diet and is used in ceremonies and when interacting with visitors (Figure 2). The fruit is collected by the women, and only those fruits detached from the racemes, naturally or by the action of animals, and that have undergone maturation are collected. Unlike the regions of Peru and Ecuador where the harvest of the fruits is achieved by cutting down female palms (Manzi y Coomes, 2009), in the "Resguardo" Wacoyo, the harvesting practice does not cause negative impacts to the ecosystem. Nevertheless, culturally, the fruit is only slightly consumed by these indigenous communities; whereas, in the surrounding countries, the fruit is relevant to the economy of the communities that have this resource. Additionally, the moriche palm fruit product is highly appreciated in the markets of urban centers and is used in several products such as yogurt, pulp, cakes,

and confectionery, among others (Del castillo et al., 2006; Velásquez et al., 2008). Sikuani communities in the "*Resguardo*" Wacoyo only use the palm fruit at the time of its seasonal abundance, from June to August, during *kulimá*, the harvest season and the food exchange fair (Queixalós, 1988); in contrast, the Amazonian communities perform massive collections without allowing time for the fruits to fall off the palm naturally.

# Leaves

Moriche leaves are recognized for their use as roofs in dwellings. They can found in the roofs of homes in the "Resguardo" Wacoyo, where some community members offered the following comments: "...We, as indigenous, observe that the moriche palm is 6 or 7 meters tall in order to set up a pole for us to climb on it and cut the leaves..." "...We cut the moriche leaves for the roof of a home during the waning crescent moon, we get there and cut them off, we climb up as high as we can, and we always leave the shoot alone, ..." (Man, 34 years old), "...we don't cut off the leaves too close to the stem; instead, we cut them off at a minimum distance of 30 cm from the stem so that the plant does not lose its vigor to keep producing new leaves ... ", "... currently they are not as widely used for roof construction because they don't last more than three years..." (Man, 49 years old).

Regarding the length of the petiole when the leaf is cut, in addition to what the community members men-



Figure 2. Traditional usages of moriche palm in the "Resguardo" Wacoyo

tioned, it was observed that this type of cut allows the person who is cutting the leaves (while clinging to the palm) to maneuver and to carry on with the climbing action, often referred as *moneado* (*monear*; local slang in Spanish referring to the action of ascending to a palm and moving to a close one without descending first). According to the community, 3000 *moriche* leaves are required to build the roof of a 60 m<sup>2</sup> house, with a mean of 50 leaves/square meter.

## Shoots

The main raw material extracted from the *moriche*, which is intended for use as fibers, are the shoots (new buds, referred as *cogollos* in Spanish). Shoot-cutting is carried out every three months to allow the plant to recover and is performed especially by the men of the *"resguardo"* during the dry season (December-March). Figueredo *et al.*, (2007) recommend harvesting two leaves per plant every month; however, Sampaio *et al.*, (2008), departing from statements given by two collectors, argue that two young leaves of the same palm should not be harvested because this act might kill the palm.

Once these shoots are cut and brought to the community, women of the "resguardo" proceed to manually extract the fibers and then cook them to prepare them for bleaching and subsequent coloration. Some fibers are left with their natural color, and some are dyed using natural or artificial dyes to give the artisanal products more appeal and to give more design. Once the operations of cooking and dyeing the fibers are complete, the fibers are hung and sundried. The drying of the fibers is important for ensuring their quality because moisture is a crucial factor in their deterioration, which is why this work must be performed in the dry season.

One of the inhabitants/artisans of the "resguardo" community remarked "...In our community, men and young men harvest the shoots and leaves of the palm; we obtain fiber from the shoots... with which we knit hats, baskets, backpacks and hammocks as well...I do not take out crafts anywhere, but I sell to tourists when they come around here...shoot – cogollos - harvesting is performed during the summer (dry season) to keep the leaves from spoiling or the fibers from turning black; in the winter (rainy season), crafts are produced. Morichales are very important for our community because we, the women, can make crafts to sell" (Woman, 35 years old).

For a major community advisor, the *moriche* palm is a resource that should not become a business; rather, it

is a resource that must be preserved. Nevertheless, knowledge transmission and cultural practices are being lost because young people are interested in external activities that allow them to earn more money compared with what they could earn for working and doing the chores that have traditionally represented their people, such as the production of crafts and "yuca brava" (Spanish) or newajü (Manihot esculenta) derivatives. In this sense, the community advisor states that external activities, such as agroindustry and hydrocarbons, may jeopardize the traditions and sociocultural dynamics of the Sikuani people in this region.

# Other uses

Among the food products that are characteristic of the "resguardo," the culture of the *Rhynchophorus palmarum* beetle larvae is noteworthy; the beetle is also known as *mojojoy* in Spanish or *simuto* in Sikuani. The beetle larvae are cultures in the fallen stems of *moriche* palms, and the larvae represent a source of protein and lipids for the community.

# Conclusions

The Sikuani communities who inhabit the "Resguardo" Wacoyo identify the moriche palm as a resource that must be preserved, and they consider the management schemes for the fruit, leaf and shoot harvesting that they follow to be in accord with their ancestral knowled-ge. Maintaining an activity such as craft production depends on preserving the moriche ecosystem. Craft production, although sometimes shared with men, is mostly performed by women, who transform the fibers obtained from the palms into hammocks, bags, backpacks, baskets, and hats, among other crafts.

At the food product level, *chicha* is not simply a food but is also a beverage that is shared socially and facilitates mingling among *"Resguardo"* inhabitants and foreigners, a tradition that is maintained by residents of the *"Resguardo."* The use of the leaves as roofing has decreased, as the short lifetimes of the leaves has led to the use of other materials to cover the dwellings.These preserved traditions, according to the Sikuani people's perceptions, are beginning to be affected by changes in the economic activities that are currently taking place in the region where the *"Resguardo"* is settled. These changes have led a part of the population to search for alternatives to the traditional ones, putting the characteristic culture of these communities at risk.

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