

# Vernacular names of traditional rice varieties reveal the unique history of Maroons in Suriname and French Guiana

Nicholaas Milliano Pinas (✉ [nicholaas.pinas@naturalis.nl](mailto:nicholaas.pinas@naturalis.nl))

Naturalis Biodiversity Center <https://orcid.org/0000-0001-9758-8709>

Tinde van Andel

Naturalis Biodiversity Center

Marieke van de Loosdrecht

Wageningen University and Research

Harro Maat

Wageningen University and Research

---

## Research Article

### Keywords:

**Posted Date:** November 23rd, 2022

**DOI:** <https://doi.org/10.21203/rs.3.rs-2287962/v1>

**License:**  This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

---

# Abstract

Rice is a keystone crop in all Maroon communities in Suriname and French Guyana today. Historically, rice can be considered an indicator crop for successful marronage in the Guianas. Maroons cultivate hundreds of traditional varieties, unraveling variety names revealed the history, farming systems, spiritual significance and probably the diversity of rice in Maroon communities. We interviewed 67 rice farmers (96% female), collected over 400 rice specimens and built a database with 284 unique rice names from our own fieldwork and previously collected names. The process of naming a rice variety is complex but there are recurrent patterns among the five Maroon groups we studied. We categorized names referring to morphology, agronomy, animals, humans, and rice brought from specific regions or by other ethnicities. Very few names are shared between Maroon groups. When we showed farmers six rice varieties from outside their village, all recognized African rice (*Oryza glaberrima*) and *pende* (spotted *O. sativa*). When a variety was unknown, an initial name was given based on its morphology. Maroon rice names are truly unique as they reflect the varieties that were available, the history of plantations and marronage, climate aspects that influenced the selection of farmers, the many separate groups of runaways joining the Maroons, the adaptation to the Amazonian ecosystem, and their contacts with outsiders. Our results show that unravelling Maroon rice names leads to a better understanding of the close connection between the process of marronage, locally developed agricultural practices and connections to West Africa. These historical origins continue to exist and form a unique Maroon system of variety exchange, farm management and crop diversity.

# Introduction

Rice is the most consumed staple food in the world, and has two domesticated species: Asian rice (*Oryza sativa*) and African rice (*Oryza glaberrima*). Apart from the many commercial cultivars, several thousands of traditional rice landraces exist in Asia, Africa, and the Americas (Li et al. 2014; Stein et al. 2018). Although widescale commercial rice farming increasingly replaces traditional varieties, small farmers have been conserving their self-developed rice diversity for their potential tolerance against flood, drought, salinity and for their nutritional, culinary and cultural values (Gopi and Manjula 2018). By using separate names for rice varieties, farmers are effectively segregating phenotypes. Over time this segregation can bring forth botanical significance. Another important aspect is that cultural knowledge of varieties helps to transmit crop knowledge both widely in a community and specialized within sub-sectors of the community (Eyzaguirre 2003). Vernacular names in Gambia reflect specific farm management practices employed by farmers and, vice versa, analysis of names were helpful to explain on-farm genetic diversity and locally-specific crop improvement strategies (Nuyten and Almekinders 2008). In Laos names often indicated particular morphological features or other unique characteristics. Also their resistance to or tolerance for commonly occurring stress factors like drought, floods, lodging, birds, weeds and adaptation to soils were reflected in names. This information helped to select germplasm for rice improvement (Rao et al. 2002).

In Suriname, rice is a major part of the dietary intake of every household (Kennedy et al. 2002). While the coastal citizens consume rice grown on commercially exploited wetland polders, traditional rice varieties (both *O. sativa* and *O. glaberrima*) are important crops for Maroons living in the forested interior (Price 1993; van Andel et al. 2019). Maroons, descendants of enslaved Africans who escaped the plantations in the late 17th and 18th century and established independent communities in the remote interior, are found in Suriname and French Guiana. Nowadays, six Maroon groups are distinguished in this region: Saramaccans (estimated population size ~ 82,500), Aucans (or Ndjuka, ~ 82,500), Matawai (~ 6,800), Paramaccans (~ 11,000), Aluku (~ 11,000) and Kwinti (~ 1,000). The majority still lives in the forested interior of both countries, except for the Matawai and the Kwinti, who have largely migrated to Paramaribo, the capital of Suriname (Price 2013).

The first official accounts by the Dutch about rice in Suriname date from 1687 and talk about plantings of rice destined for bulk food for the enslaved and soldiers (Oudschans Dentz, 1944; van Andel et al. 2022). Plantations records hardly mention rice but it is likely that rice was grown widely on food plots not administered by plantation owners, even though quantities and other information is missing until accounts of rice appear more frequently by the late eighteenth century. Once settled safely in the interior, rice became the main staple crop of Maroon communities. Historical records of military expeditions, sent out to capture Maroons, mention the first Maroon provision fields with rice as early as 1712 (Dragtstein 2002; van Andel et al. 2022).

Accounts of varietal diversity in the Maroon rice fields appeared from the second half of the twentieth century. Anthropologist Sally Price (personal communication) recorded vernacular names in the Saramaccan language for 74 varieties in the 1960s, Geijskes (1954) listed 21 local varieties among the Paramaccans and Aucans along the Marowijne River, Hurault counted a dozen varieties in 1965 planted by Aucans and Aluku in French Guiana, and Hoffman (personal communication) listed 29 varieties farmed by the Saramaccans between 2003 and 2006. Unfortunately, none of these scholars collected specimens or provided detailed (morphological) descriptions of the rice varieties. More systematic studies of the Maroon knowledge and practices regarding wild and cultivated plants was done by ethnobotanist, initially mostly on wild and medicinal plant species (Van Andel et al. 2014; (van 't Klooster et al. 2022). Collection of names and samples of rice varieties among Marron communities are from recent date (Van Andel et al., 2019) and our current study is the first attempt to sample rice diversity across all Maroon communities. to. The research questions addressed in the paper are Which rice variety names exist and what do they refer to? Why does a variety have the name that it has? Do the Maroon communities share rice names? Do Maroons recognize each other's rice varieties? What is the process for naming varieties? Is this naming pattern similar for all Maroons and is it comparable to other crops in Suriname, Africa or elsewhere?

Marronage happened from different plantations over a timeframe of more than 100 years (Dragtstein 2002). Since a substantial proportion of enslaved Africans in Suriname were rice farmers in Upper West Africa (Carney 2005), elements of a rice naming pattern may already had been established in Africa.

What we argue in this paper is that the Maroon rice naming pattern is based on a combination of cultural and agro-ecological associations with distinguishing morphological features, and 2) that the cultural associations in rice names refer to ancestral origins. A study on rice names in Gambia revealed a naming system based on morphological, agronomic and culinary traits, known persons geographical origin of the rice, and, in rare cases, animals (Nuijten and Almekinders, 2005). Moreover, the study suggests that relatively recent varieties that are widely used initially get named after the person who is considered to have introduced the seed first and subsequently are renamed based on agro-ecological or botanical features. "Naming a variety after the person who introduced it can be perceived as giving credit to that person. After a period of time, maybe 20 years or so, the variety gets a new name based on its distinctive morphological, agronomic, or culinary traits. Possibly, when varieties get more widely diffused, the actual origin loses its meaning and is forgotten" (Ibid.: 154). As our results make clear, the Maroon communities in Suriname continue to name rice varieties with references to early introductions by women who escaped from the plantations, historically more than two centuries ago. Stories about heroic escapes from plantations and surviving persecution by plantation militias and armed forces the colonial government employed to destruct Maroon villages are deeply engrained in Maroon culture. This, together with the key role of women in food production, results in a wide presence of variety names referring to ancestral women who first escaped the plantation regime. Our results thus suggest a strong role for cultural memory in the naming of Maroon rice varieties.

## Material And Methods

We conducted semi-structured interviews in five regions in March-April and July-August 2021 and March-April and July-August 2022: the Tapanahoni River (Aucans), Marowijne River (Paramaccans and Aucans), French Guiana (Aucans, Paramaccans and Saramaccans), Upper Suriname River (Saramaccans), Cottica River (Aucans) and Upper Saramacca River (Matawai) and Lower Saramacca River (Matawai and Saramaccans). see Fig. 1.

We administered a questionnaire to infer the number of varieties grown, cultivated area, variety loss, seed distribution, seed sources, field selection and variety names and meaning. All interviews were held after prior informed (oral) consent. In conjunction with this questionnaire, farmers were asked for seed samples and/or whole rice plants to make herbarium vouchers. One duplicate was deposited at the National Herbarium of Suriname (BBS) in Paramaribo, Suriname and the other in the herbarium of Naturalis Biodiversity Center in Leiden, the Netherlands. When no living plants were available for specific varieties, we collected seeds from rice stored in people's outdoor granaries. Seed samples were stored in paper envelopes: one living duplicate of each variety was deposited at the SNRI/ADRON germplasm bank in Nickerie, Suriname for storage and phenotyping, while the other (dead sample) was stored at Naturalis Biodiversity Center.

Furthermore, we interviewed paramount chiefs Albert Aboikoni of the Saramaccans, Lesley Valentijn of the Matawai and Bono Velanti of the Aucans. All three permitted us to conduct research on rice,

document traditional knowledge and collect specimens. We also interviewed five Maroon intellectuals on the meaning of rice names.

In our analysis, we also included rice names collected previously by other researchers: Ramdayal (2020) among Saramaccans, van Andel et al. (2016, 2019) among Aucans, Vaillant (1948) among Aluku and Aucans, Price (unpublished, 1960s) and Hoffman (unpublished, c. 2006) among Saramaccans, the SNRI/ADRON seed bank (unspecified Maroon communities), Geijskes (1955) among Aucans and Paramaccans and Fleury (2016) among Aluku. Additional Maroon rice names were collected from specimens in the herbarium collections of Naturalis and the Herbarium du Cayenne in French Guiana. No rice names have yet been documented for the Kwinti Maroons, so this group was not included in our analysis.

Initially, we constructed a database with more than 800 names, after which we merged the different spellings and misspelled names, following the dictionary of the Summer Institute of Linguistics (SIL, 2013). We unravelled the meaning of the names with the help of the farmers we interviewed, the SIL dictionary and our Maroon interpreters Edith Adjako, Vinije Haabo, John Jackson, Tolin Alexander, Annastacia Prisiri-Samson and Kenrich Cairo.

We then scored the (meaning of the) rice names based on their morphological characteristics (color, size, shape and presence of an awn), agronomic characteristics (threshing quality and preferred place of growth), reference to animals, females (person's names, female bodyparts, etc.) or males (names and bodyparts), geographic origin, people or ethnicities from which rice was received, and other features.

Maroons often recognize more than one type of the same variety, and for these they use binary names. For example, a red Rexora, white Rexora or spotted Rexora. In this case, we counted the variety name ('Rexora') as one, but scored an additional morphological category (red, white or spotted.) An exception was made for those varieties for which color is explicitly mentioned in the variety name and no other types are recognized within that variety. One example is *baaka alisi* ('black rice'), which is a single variety of *O. glaberrima*, and therefore was assigned its own category. We then sorted names based on the Maroon group where the sample was taken and calculated frequencies of all categories. An UpsetR diagram (Conway 2017) was created to show unique and shared names among the five Maroon groups, using R studio. A map of Suriname and figures were created using the "get\_stamenmap()" and "ggmap()" functions of the ggplot2 package (Wickham 2016) in R-studio were created using Microsoft Excel.

To verify how well farmers knew rice from other communities and how names were invented in the field, we made a 'rice quiz': a paper with five samples of local rice varieties secured under transparent tape. The varieties we selected were: *baaka alisi* (the only *O. glaberrima* variety in Suriname to date), *pende fisi* ('spotted fish', with spotted husks), *masaa alisi* ('master's rice', with red bran), *Ma Paanza alisi* ('Mrs. Paanza's rice', a rice named after a Saramaccan female ancestor), *puspusi* ('cat') and *Carolina gold* (a recently developed, modern cultivar from Anson Mills, Columbia, US). We included the 'new' Carolina gold cultivar (<https://ansonmills.com/products/23>), allegedly similar to historic Caroline Gold varieties that were exported to Suriname in the late 18th century.

# Results

## Shared Names

Overall, we interviewed 67 rice farmers (96% female): 26 Aucans, seven Matawai, four Paramaccans and 30 Saramaccans, and collected over 400 rice samples. The number of rice varieties grown per farmer varied from 1 to 21. Some rice variety names mentioned by farmers were not encountered in the field. We constructed a database from our fieldwork data and written documents with 284 unique names for rice varieties: 143 from the Saramaccans, 66 from the Aucans, 16 from the Matawai, 13 collected from the Aluku and eight from the Paramaccans (see Supplementary file). Of the 284 unique names, a total of 38 names were shared among two or more groups and only four names were found in all groups (Fig. 2).

The majority of the unique rice names are found among the Saramaccans and Aucans, the two largest Maroon groups with the most villages. These groups have more unique names than names shared with other groups. The Paramaccans have fewer unique names than names shared with other groups, most prominently the Aucans and Aluku.. The Paramaccans are small in number and live along the same river as the Aucans and Aluku.. The Matawai share more than half of their rice names with the Saramaccans. The two groups started as one and split around the 1740s (Price 1983).

Of all the rice variety names, just four were found in all the Maroon groups: *alekissoola* ('Rexora'), *baaka alisi* ('black rice'), *pende* ('spotted') and *alulu* ('it rolls'). *Alekissoola* is identified as locally adapted version of *Rexora*. This glabrous-hulled cultivar was developed in 1926 in Louisiana (Rutger and Mackill, 2001), introduced to Guyana in 1932 (Codd and Peterkin, 1933), and widely grown in coastal Suriname by 1938. According to Stahel (1944), a bale of *Rexora* rice was sent to the Saramaccan village Ganzee in 1936. The name *baaka alisi* is the only variety of black or African rice, and known by all Maroons as a spiritual rice (van Andel et al. 2019). The name *alulu* (*a bon*) means 'it rolls (from the tree)' as it is a shattering type. Aucan farmers see shattering as a positive trait, since it facilitates the threshing process. The name '*pende*' refers to varieties with spotted husks.

## Naming categories

Based on the information obtained from rice farmers and documentation, we identified six naming categories. Names were given based on the rice morphology, agronomy, resemblance to animals, associations to males or females, geographic locations or other ethnicities. Figure 3 shows that rice names referring to morphology account for almost 40%, which is the highest for all categories and the binary naming pattern accounts for this. If we look only at the non-binary (simple) names, the morphology category drops to 24%, making the female category (28,6%) the category with the most rice names.

## Morphological characteristics

Most Maroon rice names refer to the morphology of a specific plant part, such as grain shape and color, husk color, plant shape and size, panicle structure, awn color and shape. Names such as *lebi alisi* in

Aucan and *bë alisi* in Saramaccan both mean 'red rice' and described the husk color of this variety. The Saramaccan name *hánza-a-bandja* means 'wings on the side', and refers to long outer glume on each side of the grain that is a typical morphological character of this variety (Fig. 4A). The Saramaccan name *jöööjööö* (long hair) is given to a variety with very long awns (Fig. 4B).

### Agronomic characteristics

Approximately nine % of all rice names were connected to agronomic characteristics, such as a preference for swampy soil, a tendency to lodge, etc. Names such as *awéi máun* (Saramaccan and Matawai for 'making the hands tired') refer to the heavy panicles that cause exhaustion during harvesting time. *Kaasihánsi* (Saramaccan for 'itching hands') refers to the irritating hairs on the leaves or grains and *alulu* (*a bon*).

### Reference to Animals

Almost 13% of all Maroon rice names refer to animals, most of them are native to the Amazonian rainforest. The names *pingo puuma* (bush pig hair), refers to the collared peccary or skunk pig (*Dicotyles tajacu*), while *djampö* and *pakia* both refer to the white-lipped peccary (*Tayassu pecari*), both wild pig species living in the Suriname forests. Rice varieties associated with these peccary species all have a long awn that looks similar to peccaries' hair. The variety named *watadagu* ('river otter') has stiff awns and referred to the whiskers of the river otter, while the variety *puspusi* ('cat') has softer awns and referred to cat.

*Apiikutu* (*futu*), translated as 'green-rumped parrotlet (feet)', is a rice variety that is often destroyed by this bird (*Forpus passerinus*), as it descends on the rice to feed on it and squeezes the panicles with its feet. Aucan chief Bono Velanti explained that one time this specific parrotlet had eaten a lot of rice in the field, and farmers had caught and killed it. When gutting the bird, the farmers found that its stomach was full of rice. They had taken the seeds to be sown again and named the variety after the parrotlet.

Lastly, one rice variety refers to a bird species from West-Africa. The name *toke* for a variety with dark brown patches on the husk refers to the Guinea fowl (*Numida meleagris*), a West African bird that was introduced to Suriname on slave ships (Benjamins and Snelleman 1917).

### Male associations

A small number of names are connected to men. The variety *Adongote konde*, meaning 'Adongote's place', is one of them. A farmer said he loved this rice so much that it used to be the only variety he farmed. When he passed away, the villagers decided to name this variety after him. *Ston taka* is a name referring to male pubic hair, as it has a curly black awn that falls off easily. The Aucan rice variety *mesti* ('teacher') is named after a teacher of the first boarding school established in the Marowijne River, shortly after World War II. He had handed out rice to the mothers of the pupils, who appreciate the variety until today (van Andel et al. 2019).

## Reference to places and other ethnic groups

A limited number of rice names refers to places, such as for example *Abenaston*, a Saramaccan village. We think that the researcher who collected this name either invented it without discussing it with the farmer, or it arose from a misunderstanding between the two, or the farmer preferred to mention a village rather than a specific name. Names in this category also refer to ethnic groups, such as *Aluku paansu* (Aluku seeds), *bě djugá* (red Aucan), and *Ndyuka alulu* (Aucan roller), which suggests an exchange between two Maroon groups. Naomi Eva, a Matawai farmer living in Comsarsikondre (Saramacca river) from whom we collected *Ndyuka alulu*, said she received this rice from Aucan people. Notably, Aucans themselves never labelled their own rice as *Ndyuka*. It seems that exchange of varieties among the groups rarely happens.

In the post-emancipation period, the Maroon groups also exchanged rice with non-Maroon groups, such as indentured laborers from India (Hindustani), who were brought to Suriname from the late 1870s onwards. A variety that named *kuli kuli*, for example, has a clear reference to coolies, the derogatory term used for indentured labourers from India. The Dutch colonial government also arranged recruitment from Java and we encountered a glutinous (sticky) rice variety named *katam* strongly resembling *ketan*, the Indonesian word for stickiness.. More recently, Hmong refugees, an diasporic ethnic group from the northern mountains of Laos and Vietnam, arrived in French Guyana after 1975 and Maroons hold a variety they named either *Hmong* or *anambu*. The latter refers to a water bird with long legs, as the Aucans said the Hmong people lived on stilt houses above the swamp.

## Traces of early runaways

The category 'ethnic groups' also contains rice names that refer directly to the time of marronage. Names, such as *Baákápáu tjaka*, *Agbosótjaka*, *Mbotombolia*, and *Afanti sacca*, refer to groups of runaways that joined the Maroons in different time periods. The Baákápáu were a group of people who escaped from the Tout Lui Faut plantation in the 1690s (Price 1983). The term Agbosó probably refers to Fon-speaking people, from A(g)bomey, the capital city of the former Kingdom of Dahomey, currently Benin (Smith. 2015a). The Agbo ran away and joined the Saramaccans around 1750s (Price. 1983). The term Mbotombolia probably refers to a Maroon group that settled along the Boterbalie creek in the Para district, and taken along by the Matawai leader Musinga (Price 1990). The (A)fanti or Fante are a subgroup of the Akan people in southern Ghana of whom many were transported to Suriname (Wooding 1979). According to the traditional healer Kenrich Cairo, the Afante people escaped from the Tempati region and joined the Aucan Maroons. Our data suggest that all these groups of escaped people had rice with them.

## African words in Maroon rice names

Several Maroon rice names contain terms that can be linked to African words, of which the meaning was mostly forgotten or changed over time. The name *pende*, meaning 'dark' or 'dusk' was reported for an *O. glaberrima* variety found in Sierra Leone that was ready to harvest between 80 and 90 days (Richards



1983). We found the name *pende* associated with several *O. sativa* varieties with dark spotted husks, but with a growth season of 4 months, similar to most other Maroon varieties.

The words *saka* is a general word for rice in Mende (Sierra Leone), Gban (Ivory Coast) and several other unrelated African languages, and only occurs near old Portuguese and Spanish trading posts. The root of the word is probably the Portuguese word *sacudir*, meaning 'to shake up' or 'winnowing rice', used as contact word by slave traders buying rice as bulk food for the trans-Atlantic voyage (Wiener 1920). We found that only few farmers knew what *saka* meant, although the term was shared by the Aluku, Aucans and Paramaccans. However, Saramaccan names, such *Agbosotjaka*, *Afantisaka*, *tjaka Ma Jaa* and the Matawai name *atjakati*, also seemed to carry this same word (*saka*).

The name *böngö* is also another general name for rice, particular in the Saramaccan community. The best translation is probably 'seeds' or 'seedling', but also 'children' or 'offspring'. Among the Aucans, we heard the term *bongo* only in a rice song that was sung when farmers were finished with sowing. They hoped that by singing it the harvest would be plenty. *Bongo* probably comes from the Central African word *m-boóngo* in the Kintandu language, meaning 'descendants', 'planting material', 'seeds', and 'offspring' (Smith. 2015b).

#### Non-translated and other names

Almost 15% of the Maroon rice names we could not translate, or none of our interviewees could explain or remember their meaning. Names also referred to other objects or things that did not fit in a category. Names such as *kamu*, *topi-topi* and *adjekwaman* were collected by other researchers, but they did not ask the farmers for the meaning of these names. The name *kamasondu* was collected by us, but the farmer who grew it could not recall what the name meant, and we could not find another person that knew its meaning. The name *adjádja* (rice crust), was the only variety referring to culinary use.

#### Rice is a woman

Finally, the names referring to women make up almost 30% of all names. Rice is in a symbolic sense considered to be a woman, and the reasons for this are diverse. Saramaccan farmer Mariona Tiapoe explained to us: 'It is women who plant the rice, and [like a woman] one rice seed can bring forth a lot of children'. The great majority of the Maroon farmers are women. It seems that when they invent rice names they refer to their own gender, such as the Saramaccan names *gaán bóbi* (big breast), *longi longi mujëë* (very tall woman), *koto mujëë* (cold woman), *limbo mujëë* (clean woman) and Aucan names such as *moi uma* (beautiful woman) and *tjantjan poena* (old ladies' pubic hair, after its thin white awn). These names refer to women in general, but the majority of rice named associated with females refer to specific female individuals (Fig. 5).

In Maroon oral history, there is a claim that women escaped from the plantations with rice braided in their hair (Carney 2004). Although the early Maroon history is complex and contains reiterant exchanges between plantation slaves and Maroons, the women had a crucial role in the cultivation of food crops.

Rice varieties carry names of women that allegedly were the first to bring rice to the Marron villages (van Andel et al. submitted). Rice names such as *Ma Paanza* refer to Mrs. Paanza. Saramaccan paramount chief Albert Aboikoni explained that she escaped with rice from a plantation named Stenberg. She took the rice to Baakawata, a village that does not exist anymore along the Pikin Lio. A similar story documented by Price (1983) is attributed to the variety *lisi Seei*, meaning Mrs. Seei's rice, named after an enslaved Ghanaian woman who escaped in 1690 from the plantation Waterland. She fled together with her daughter Yaya, after which the rice variety *tjaka Ma Jaa* was named. Rice names such as *Anoussa*, *Amessina* and *Alena* refer to women whose history is probably forgotten, as the farmers could not recall anymore who they were, probably because they had only limited impact in small communities.

Varieties named after specific women do not only refer to the time of marronage, but also persons that recently died or are still alive. *M'kono alisi* (M'kono's rice) was collected from her neighbor, shortly after *M'kono* passed away. *Odina konde* (Odina's place) was encountered on the field of Odina Aboikoni in Dangogo 2, the uppermost village on the Pikin Lio (Fig. 6). She had not seen this variety before, and her mother decided to name it after her. New women's names have been invented over the centuries, because new varieties are continuously appearing on farmers field, or names are forgotten and rice is renamed after its farmer.

### The naming pattern across Maroon groups

In the five Maroon groups, the naming pattern seems to be the same. Figure 7 shows the percentages of names in the different categories for the specific groups. Similar percentages are found for all Maroon groups, including for the two most frequent categories: morphology (between 31% and 35% for all groups) and female (between 15% and 22%). For the Aluku, the percentage in the category 'other' are relatively high, because most names collected by Fleury (2016) were not translated, and we did not do fieldwork among Aluku farmers. The Matawai have a relatively high score in the male category, because their owned rice was called *bia bia* ('young man' or 'beard') and we scored this as an association to males

### Recognizing each other's rice

The six rice varieties that we selected to see how farmers would identify each other's rice were not equally familiar. Black or African rice (*Oryza glaberrima*) was recognized by all 20 farmers who participated in the exercise as *baaka alisi* (black rice) or *matu alisi* (forest rice), because of its dark brown husk and its spiritual significance in Maroon communities (van Andel et al. 2010). The variety *pende fisi* was also well recognized by 85% of farmers as *pende* or *ahunjön*. These spotted rice probably are old varieties: the name West African name *pende* was first documented by Valliant (1948) along the Marowijne River for rice varieties with striped husks. The origin of the Saramaccan term *ahunjön*, which means 'ugly', due to the dark brown spots on the husk, remains unknown.

*Masaa alisi* ('master's rice') was only farmed by Aucans living along the Cottica River, probably because the variety needs to grow in swampy areas. The variety had a mix of purple and white grains, and was not recognized by farmers from outside the Cottica. According to Aucan artist Tolin Alexander, the term

*masaa* ('plantation owner') was used by Aucans returning from the Tapanahoni River to the Cottica region for the descendants of enslaved Africans who remained on the former plantations. After emancipation, the Maroons met their former family members on the plantations they had fled from a century ago. As a token of respect, they addressed these people with *masaa* ('master'). These people were farming rice on the abandoned plantations and they shared their swampland varieties with the Maroons. As *masaa alisi* had red seeds, 20% of the farmers named it *kamasondu*, which is a Saramaccan upland variety with red seeds. The other Maroons did not recognize it.

*Puspusi* was only collected in Semoisi, a Saramaccan village along the upper Suriname river. The variety was not recognized by any of the 20 farmers, probably because its name is limited to Semoisi. In the other villages, 85% of the farmers named it after its long awn, so either *tjantjanpuna* ('old women pubic hair'), *jööjööö* ('long hair') or *weti hedi mma* ('white headed woman').

The variety *MaPaanza* with smooth orange husks, collected in the Saramaccan village Jawjaw, was not recognized by any of the farmers. However, women from the same tribe have another type of *Ma Paanza* with hairy husks and red seeds.

The modern US cultivar *Carolina gold* was not recognized by any farmer as a foreign cultivar. All 20 farmers considered it a Maroon rice variety and called it names such *lebi alisi* and *bë alisi* (red rice), because of its orange husk.

Inventing names for unknown rice

Farmers looked at the rice varieties we selected for the exercise and came up with names for those they thought they recognized, but also invented names for those they did not know. Figure 6 shows that when an unknown variety had a white husk, farmers incorporated this trait as part of the suggested name only in 20% of the cases. When the husk color was orange, this was incorporated in more than half of the suggested names. Farmers who guessed a name for varieties with an awn used this trait in the majority of the names they invented. When the variety had a red seed 30% of the farmers incorporated this trait as part of the name they invented. So there seems to be a hierarchy in name giving, the awn is seen as a major motivation for inventing a name.

## Discussion

Mechanism of naming

From the 284 unique Maroon rice names, a naming pattern was noticed with categories referring to morphology, agronomy, animals, male and female names, and rice brought from specific regions or by other ethnicities. As the five Maroon groups had only four to five rice names in common, we can deduce that most names were invented after the enslaved Africans escaped into the forest and formed tribal groups that practiced agriculture in relative isolation. However, as the Maroon rice naming pattern is similar between groups, it is likely that this was in place before marronage.

The difference between our findings and the rice naming systems described by Nuijten and Almekinders (2005) for Gambia and by Rao et al. (2002) for Laos are the names referring to the length of the growth season, extension officers, resistance to drought, weeds, development organizations and production ecosystems. These categories are absent in Suriname, as all Maroon rice varieties are ready to harvest within four to five months, production systems are all similar, there are no extension officers or NGOs handing out rice, and drought is not a problem. Common aspects of our results with Laos and Gambia are the names referring to morphology, agronomy and resemblance to animals, which may be part of an universal naming system for rice or crops in general. In Gambia, rice names also refer to female farmers who introduced a variety into the community. Unfortunately, Nuijten and Almekinders (2005) translated only 20 of the 129 rice names they collected, which makes comparison with our dataset difficult. In Laos there is no mention of either female or male farmers' rice names (Rao et al. 2002).

Due to the naming of rice after specific persons, the Maroon naming pattern has more similarities to the system in Gambia than to the one in Laos probably because lots of enslaved Africans were transported from west Africa to Suriname. Rice names were also recorded in many other West African countries, such as Guinea Bissau, Guinea Conakry, Togo, Sierra Leone, Ghana and Senegal (Nuijten et al. 2009). Unfortunately, most of these names have not yet been translated. If this had been done, we would be able to compare the Maroon naming pattern more thoroughly with those of the countries from where enslaved Africans were taken to Suriname. Of the few African rice names that were translated by Richards (1983), we see some resemblance between the Maroon pattern and the west African systems. The Mende rice name *helekpoi* ('elephant') in Sierra Leone was a variety that was found in the stomach of an elephant that was killed after destroying a rice field. A similarly constructed name, *apiikutu* in Suriname, refers to rice found in the stomach of a parakeet that had eaten from the crop. In both cases, farmers continued to grow the rice taken from the dead animals. The name *kalembaama*, large jaw bone in Mende, refers to a variety with long outer glumes. A very similar-looking rice grown by Saramaccans is known as *hánza-a-bandja*, meaning 'wings on the sides'. *Ngolo-yombo* ('chimpanzee hair') in Mende has a long black awn like the hair of this ape (Richards, 1983). The naming of awned rice after hairy animals was also found in Suriname, where Amazonian mammals such as peccaries, otters, howler monkeys and jaguars have taken over the role of their African counterparts.

As people from many different African ethnicities ended up on Surinamese plantations, any African naming of rice varieties that 'survived' the Middle Passage was influenced by the overall Creolization of language and food producing practices on the plantations and, subsequently, in the Maroon villages. The naming pattern is thus best characterized as a local adaptation of an Atlantic bowl of rice varieties and names to the Surinamese situation. The selection, adaptation and naming process continued in the post-abolition period.

### Women as key agents in rice diversity

Maroon rice names are most unique in the reference to women. This category accounted for almost one third of all names. Names refer to women in the more general sense, such as 'red woman', 'white-' or

'black-haired woman', 'messy woman', but also to individual people. What makes Maroon rice names truly distinctive are varieties such as *Ma Paanza*, *alisi Seei* and *Ma Jaa*. These were well-known ancestors of the Saramaccans who allegedly escaped with rice who are not known by other Maroon groups. The general pattern that emerges is that every Maroon tribe seems to have rice names of specific women that are considered as the first to have escaped with rice and commemorated as fundamental to their own survival. We did not yet collect such stories from Paramaccans and the Aluku. These rice names probably have been passed on over many generations, potentially as far as the late seventeenth century. Paanza, Seei and Yaya are said to have escaped their plantation between 1690 and 1739 (Price 1983). The strong presence of female names for rice varieties represents the important role of female farmers in Maroon rice cultivation. Different groups of runaways, such as Agbos, Baákapáús and Boterbalies were mentioned in accounts of Maroon oral history (Price 1983), but merged into different Maroon clans and lost their original names. Our research suggests that they all escaped with specific rice varieties that kept the name of these people. This information is probably lost in oral history and the contemporary archives, but the rice names indicate that they all contributed to the current crop diversity in the Maroon communities.

### Shared African heritage

African terms for rice, such as *pende*, *saka*, and *bongo*, known in different forms and spelling, reveal traditional knowledge about this crop among enslaved Africans prior to marronage. The same goes for the often-used rice name *alulu* in Aucan communities. The root of this word, *lunlun*, meaning 'to fall apart' or 'crumble' comes from the Ewe language spoken in Benin (Smith. 2015a). The fact that all Maroon farmers recognized *baaka alisi*, the only *O. glaberrima* variety, and most knew the name *pende* for spotted rice is probably because these names refer to old morphological traits that are easily recognized. When a variety is not known, a name is given that is first based on morphology and if it does not have striking features such as an awn, it is connected to the woman who first introduces it to others. The question still is whether the many names also reflect a huge genetic diversity. Not every name represents a single variety, some names can include more than one rice type. Other varieties can have more than one name. Future research on the DNA of our Maroon rice samples will reveal to what extent the names are indicative for genetic diversity, and probably reveals the geographical origin of these crop varieties.

### Names do change

Maroon rice cultivation probably is a dynamic system in which new varieties appear and old ones get lost, and the same must be happening with names. The oldest documented name of a rice variety was 'joerka aleisi' (ancestor spirit rice) by Hostmann (1850), which we also reported in 2021. Of the 28 unique rice names collected by Price in the 1960s, however, 40% was no longer heard during our surveys in the same region. We also found names that were previously not recorded, but had the same meaning as names recorded before, such as *amapapi* (1960s), meaning 'with wings on the side' probably refers to the same outer long glumes as the rice that we collected with the name *jesi teke* (long ears) or *opolani* (airplane). Unfortunately, there is no picture or herbarium collection of *amapapi* for us to compare. We

believe also that names such as *Aluku paansu* (Aluku seed) and *Ndyuka alulu* (Aucan roller) exist because the original name is forgotten (or misunderstood) after it was exchanged with another Maroon group. However, this pattern of changing names is not the same as in Gambia, where varieties that were exchanged immediately got the name of the introducer, but lost this after c. 30 years (Nuijten and Almekinders 2007). Rice names in Maroon communities often still reflect historic introducers and farmers, some as old as 300 years.

## Conclusion

Maroon history is reflected in the names of rice varieties currently grown by Maroon groups in Suriname. A substantial portion of rice names refers to women who are commemorated through stories about bringing food crops to the community during the struggle for freedom. Furthermore in the rice names we found the separate groups of runaways that all brought rice with them, descendants of these groups do not have the same name anymore. The other ethnicities the Maroon had contacts with in the past, and the adaptation to the New World environment visible in the references to Amazonian animals. The process of naming a variety is complex, but seems uniform in all five Maroon groups studied so far and have clear but unspecific reference to West-Africa.

## Declarations

### Acknowledgements

This research was financially supported by the Netherlands Organization for Scientific Research (OCEW.Klein.419). The authors thank SNRI/ADRON, the National Herbarium Suriname (BBS), translator Edith Adjako and all collaborating farmers for their support. We also thank Maroon intellectuals Andre Mosis, John Jackson, Jermain Keizer and Tolin Alexander. Paramount chiefs Albert Aboikoni (Saramaccans), Lesley Valentijn (Matawai) and Bono Velanti (Aucans), and Santigron village chief Dansi Waterberg greatly facilitated our research.

Declaration: the authors declare no conflict of interest.

## References

1. Benjamins H., and J. Snelleman. 1917. *Encyclopaedie van Nederlandsch West-Indië*. 's Gravenhage: M. Nijhoff.
2. Carney, J. 2005. Rice and memory in the age of enslavement: Atlantic passages to Suriname. *Slavery & Abolition* 26(3): 325–348.
3. Carney, J. 2004. 'With grains in her hair': rice in colonial Brazil. *Slavery & Abolition* 25 (1): 1–27. DOI: 10.1080/0144039042000220900
4. Codd, L., and E. Peterkin. 1933. *Rice in British Guiana, 1927–1932*. Georgetown: British Guiana Department of Agriculture Rice Bulletin1: 1–38.

5. Conway J., A. Lex and N. Gehlenborg 2017. UpSetR: an R package for the visualization of intersecting sets and their properties. *Bioinformatics* 33: 18.  
<https://doi.org/10.1093/bioinformatics/btx364>
6. Dentz, F. O. 1944. De herkomst en de Beteekenis van Surinaamsche Plantagenamen. *De West-Indische Gids*, 26, 147–160. DOI: <http://www.jstor.org/stable/43390414>
7. Dragtenstein, F. 2002. 'De ondraaglijke stoutheid der wegloopers': Marronage en koloniaal beleid in Suriname, 1667–1768. Utrecht: Utrecht University
8. Eyzaguirre, P. 2003. Cultural factors and crop genetic diversity. In: *Conservation and sustainable use of agricultural biodiversity*, eds D. Campilan et al., 39–45. Los Banos: CIP-UPWARD.
9. Fleury, M. 2016. Agriculture itinérante sur brûlis (AIB) et plantes cultivées sur le haut Maroni: étude compare chez les Aluku et les Wayana en Guyane française. *Bol. Mus. Para. Emílio Goeldi* 11, 431–465. doi: 10.1590/1981.81222016000200006
10. Geijskes, D. 1955. De landbouw bij de Bosnegers van de Marowijne. *De West-Indische Gids* 55: 135–153. doi: 10.1163/22134360-90000089
11. Gopi, G., and Manjula, M. 2018. Speciality rice biodiversity of Kerala: need for incentivising conservation in the era of changing climate. *Current Science* 114: 997–1006.  
<http://www.jstor.org/stable/26495193>
12. Hoffman, B. Unpublished list of rice names from upper Suriname river collected in the 2003–2006 (personal communication).
13. Hostmann, F. W. 1850. *Beschaving van Negers in Amerika door Kolonisatie met Europeanen*. Amsterdam: J. C. A Sulpke
14. Kennedy, G., B. Burlingame, and N. Nguyen. 2002. Nutrient impact assessment of rice in major rice consuming countries. *International Rice Commission Newsletter*: 33–41
15. Li, J., J. Wang, J., and R. Zeigler. 2014. The 3,000 rice genomes project: new opportunities and challenges for future rice research. *Gigascience* 3: 1–3. <https://doi.org/10.1186/2047-217X-3-8>
16. Nuijten, E. and C. J. Almekinders, 2008. Mechanisms explaining variety naming by farmers and name consistency of rice varieties in the Gambia. *Economic Botany* 62: 148–160.  
<https://doi.org/10.1007/s12231-008-9012-0>
17. Price, R. 1983. *First Time: The historical vision of an Afro-American people*. Baltimore: The Johns Hopkins University Press.
18. Price, R. 1990. *Alabi's world*. Baltimore: The Johns Hopkins University Press.
19. Price, R. 1991. Subsistence on the plantation periphery: Crops, cooking, and labour among eighteenth-century Suriname maroons. *Slavery and Abolition* 12: 107–127.  
<https://doi.org/10.1080/01440399108575025>
20. Price, R. 1996. *Maroon societies: Rebel slave communities in the Americas*. Baltimore: John Hopkins University Press.

21. Price, R. 2013. The maroon population explosion: Suriname and Guyane. *New West Indian Guide* 87(3–4): 323–327. <https://doi.org/10.1163/22134360-12340110>.
22. Price, S. 1993. *Co-wives and Calabashes*. Michigan: University of Michigan Press.
23. Price, S. Unpublished list of rice names from upper Suriname river collected in the 1960s (personal communication).
24. Ramdayal M. 2020. Traditional rice cultivation by descendants of Hindustani contract laborers in Suriname. Leiden: MSc thesis, Leiden University.
25. Rao A. S., C. Bounphanousay, J. M. Schiller, A. P. Alcantara, and M. T. Jackson. 2002. Naming of traditional rice varieties by farmers in the Lao PDR. *Genetic Resources and Crop Evolution* 49(1): 83–88.
26. Rutger, J., and D. Mackill. 2001. Application of Mendelian genetics in rice breeding. *Rice Genetics* 4: 27–38. [https://doi.org/10.1142/9789812814296\\_0002](https://doi.org/10.1142/9789812814296_0002)
27. Smith, N. 2015A. A preliminary list of probable Kikongo (KiKoongo) lexical elements in the Surinam Creoles. In: *Surviving the Middle Passage: The West Africa-Surinam Sprachbund*, eds. P. Muysken and N. Smith, 417–462. Berlin: Mouton de Gruyter.
28. Smith, N. 2015B. Ingredient X: The shared African lexical element in the English lexifier Atlantic Creoles and the theory of rapid creolization. In: *Surviving the Middle Passage: The West Africa-Surinam Sprachbund*, eds. P. Muysken and N. Smith, 67–106. Berlin: Mouton de Gruyter.
29. Stahel, G. 1944. De nuttige planten van Suriname. Paramaribo: Departement Landbouwproefstation in Suriname, Bulletin 59.
30. Stein, J., Y. Yu, D. Copetti, J. Zwickl, L. Zhang, and C. Zhang. 2018. Genomes of 13 domesticated and wild rice relatives highlight genetic conservation, turnover and innovation across the genus *Oryza*. *Nature Genetics* 50: 285–296. doi: 10.1038/s41588-018-0040-0
31. Summer Institute of Linguistics (SIL). 2013. Languages of Suriname. <http://suriname-languages.sil.org>
32. Vaillant, A. 1948. Milieu cultural et classification des variétés de riz des Guyanes française et hollandaise. *Journal d'agriculture traditionnelle et de botanique appliquée* 28: 520–529. doi: 10.3406/jatba.1948.6700
33. Van 't Klooster, C., V. Haabo, M. van den Berg, P. Stoffelen, and T. van Andel. 2022. African elements in Saramaccan Maroon plant names in Suriname. *Botany* 100: 141–157. <https://doi.org/10.1139/cjb-2021-0066>
34. Van Andel 2010 black rice ECONBOT ontbreekt
35. Van Andel, T. 2023. Afrikaanse planten en dieren reisden mee op slavenscheppen: wie overleefden de reis? *Tijdschrift voor Zeegeschiedenis* 42(1) in press.
36. Van Andel, T., A. van der Velden, and M. Reijers. 2016. The 'Botanical Gardens of the Dispossessed' revisited: richness and significance of Old World crops grown by Suriname Maroons. *Genetic Resources and Crop Evolution* 63: 695–710. doi: 10.1007/s10722-015-0277-8



37. Van Andel, T., C. van 't Klooster, D. Quiroz, A. Towns, S. Ruyschaert, and M. van den Berg. 2014. Local plant names reveal that enslaved Africans recognized substantial parts of the New World flora. *Proceedings of the National Academy of Sciences* 111: 5346–5353. <https://doi.org/10.1073/pnas.1418836111>
38. Van Andel, T., H. Maat, and N. M. Pinas. 2022. Maroon women still grow rice varieties named after their ancestors who hid seeds in their hair when they escaped slavery in Suriname. *Researchsquare* (forthcoming)
39. Van Andel, T., M. Veltman, A. Bertin, H. Maat, T. Polime, D. HilleRis Lambers, J. Tjoe Awie, H. de Boer, and V. Manzanilla. 2019. Hidden rice diversity in the Guianas. *Frontiers in Plant Science* 10: 1161. <https://doi.org/10.3389/fpls.2019.01161>
40. Wickham, H. 2016. Data Analysis. In: *ggplot2. Use R!*. Springer, Cham. [https://doi.org/10.1007/978-3-319-24277-4\\_9](https://doi.org/10.1007/978-3-319-24277-4_9)
41. Wiener, L. 1920. *Africa and the Discovery of America*. Philadelphia: American Anthropologist
42. Wooding, C. 1979. Traditional healing and Medicine in Winti: A sociological interpretation. *African Issues*: 35–40. Doi:10.1017/S0047160700504624

## Figures

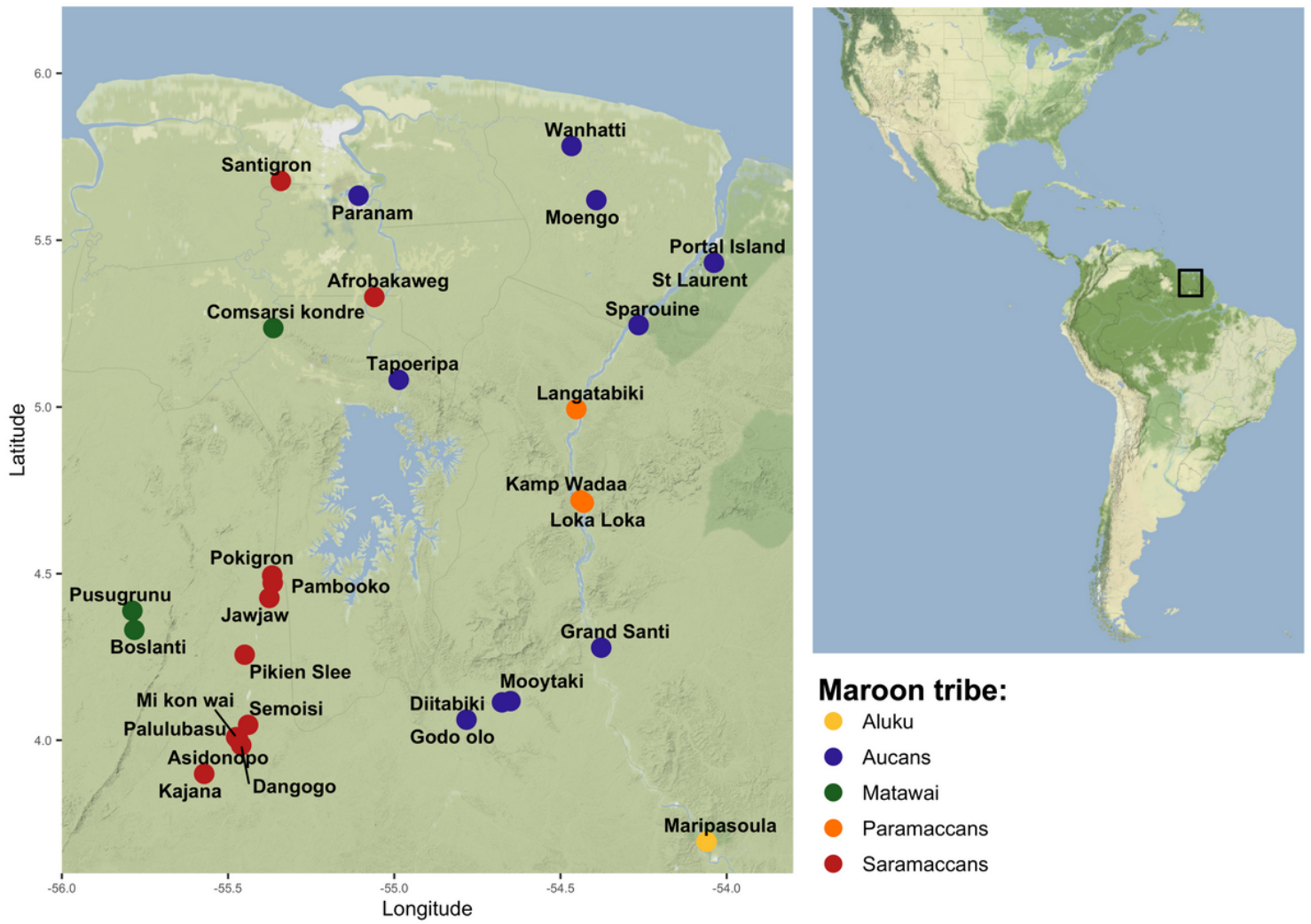
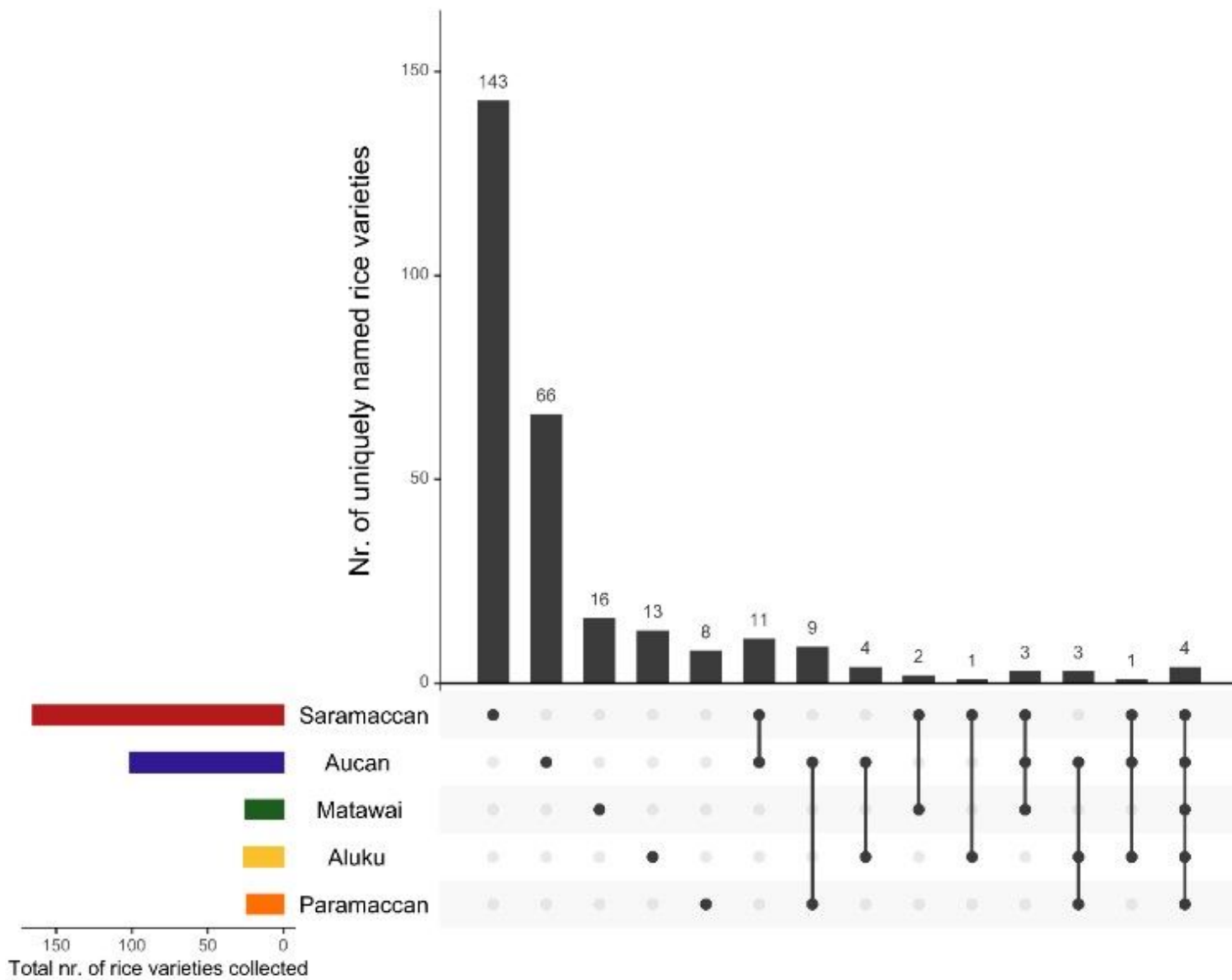


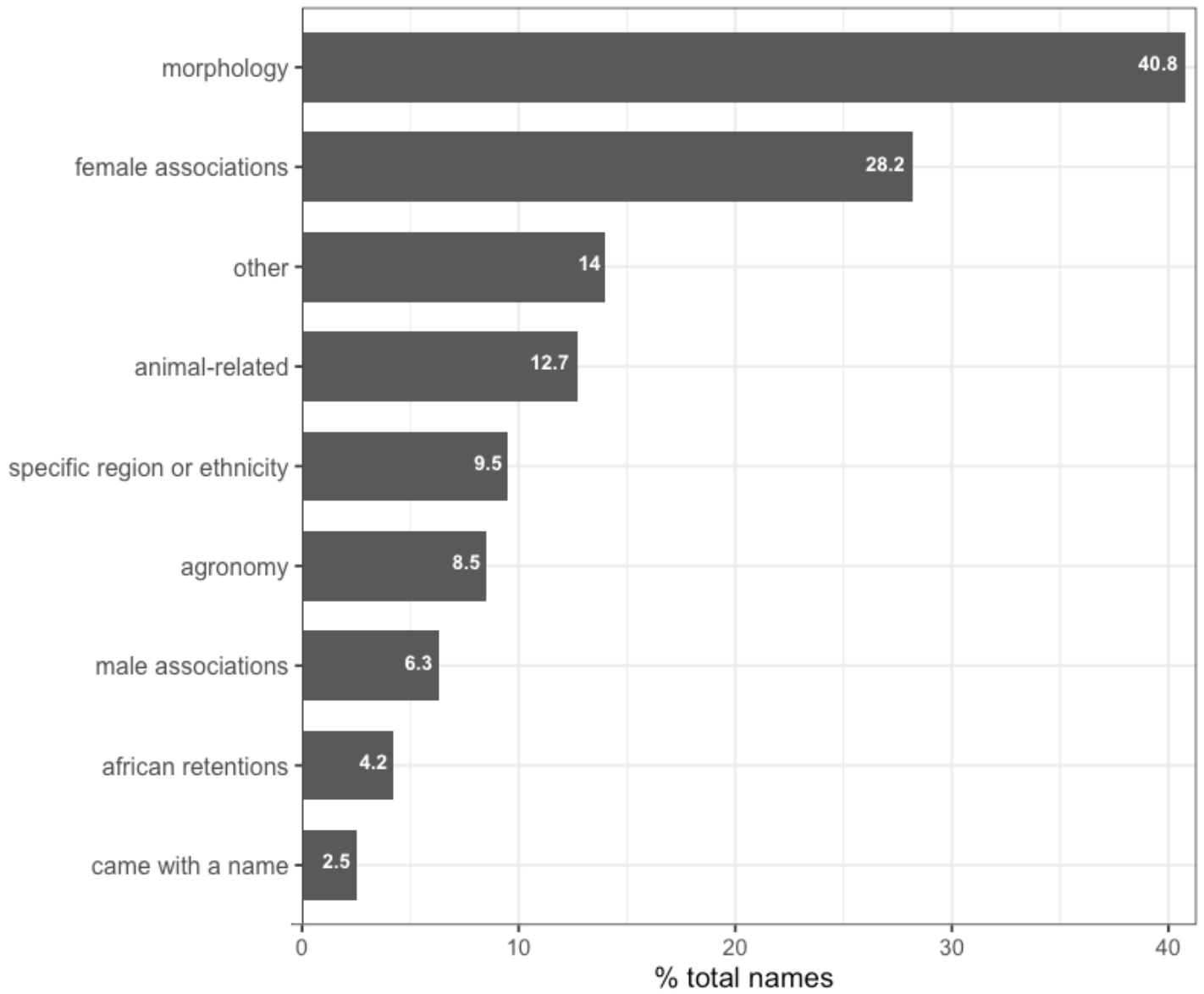
Figure 1

Map of Suriname showing major sites for each of the Maroon groups where rice names were collected.



**Figure 2**

UpsetR diagram showing the number of unique and shared vernacular rice names of the five Maroon groups



**Figure 3**

Percentages of rice names in each naming category. Percentages add up to more than 100 % since we scored 76 binary names in more than one category.

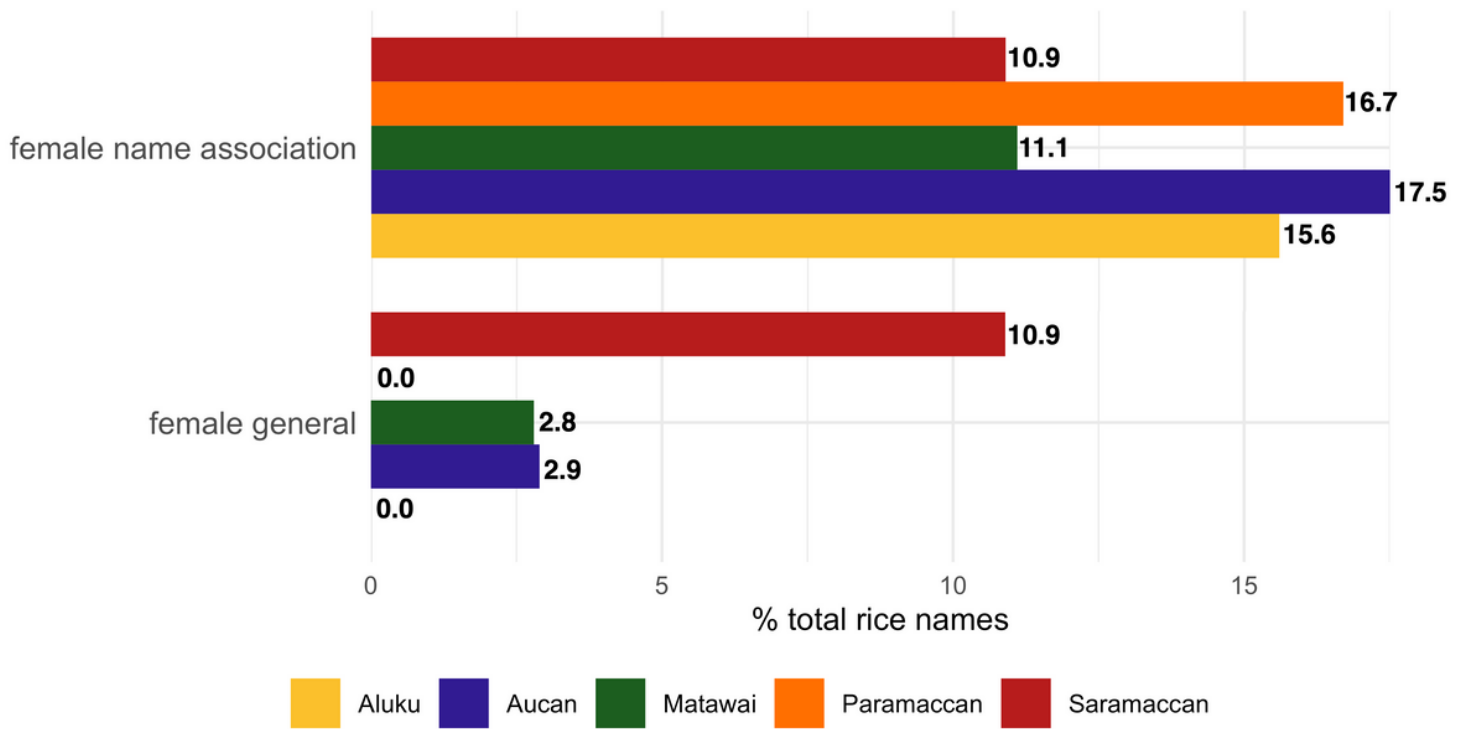


A

B

**Figure 4**

A. The Saramaccan traditional rice variety *hánza-a-bandja* ('wings on the side', NP 220 ). The long outer glumes are clearly visible. B. the Saramaccan variety *jöööjööö* ('long hair', NP137). Pictures: Nicholaas Pinas.



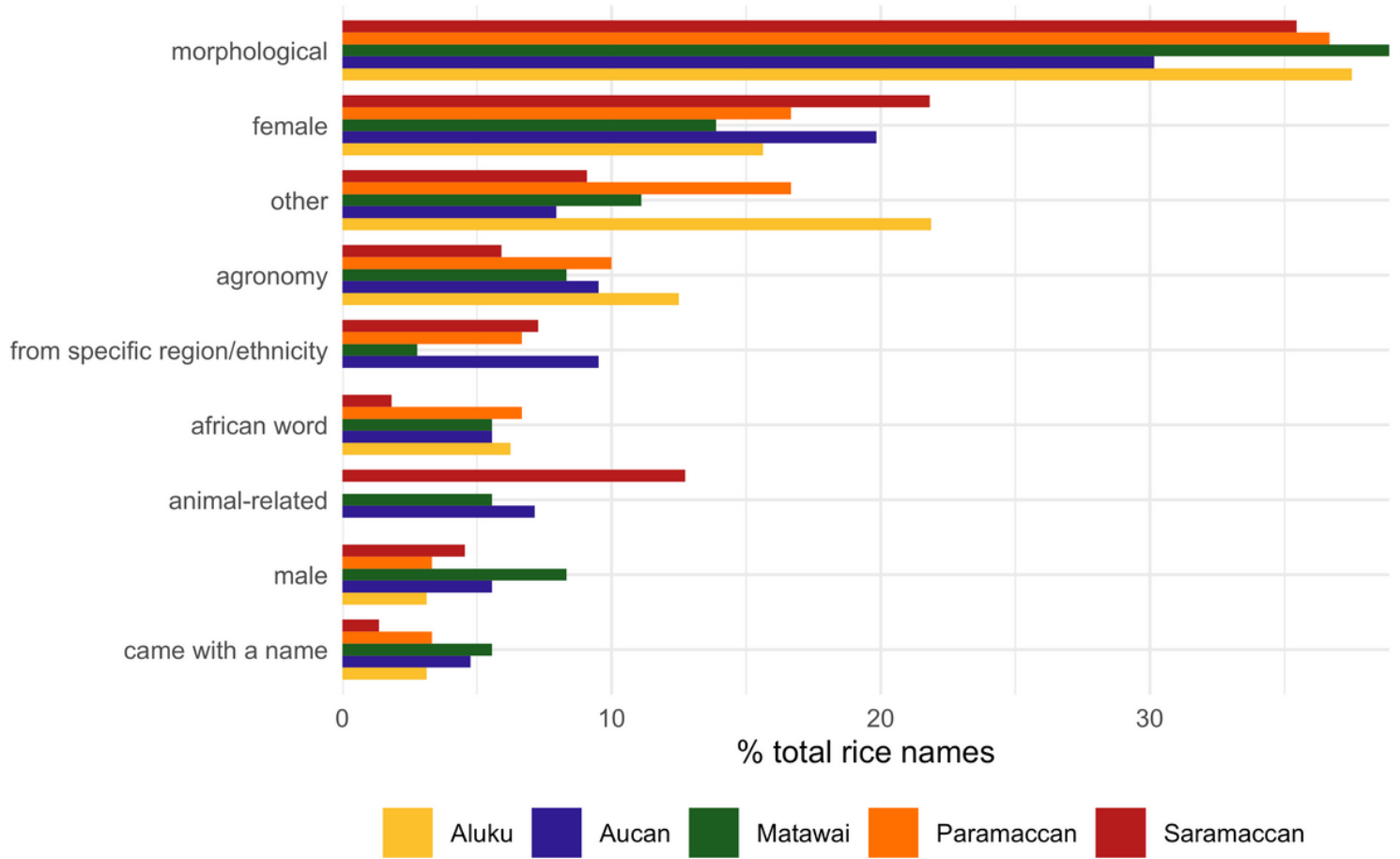
**Figure 5**

Percentage of rice names referring women (n=80), split in general female associations and referral to specific female persons in all Maroon groups.



**Figure 6**

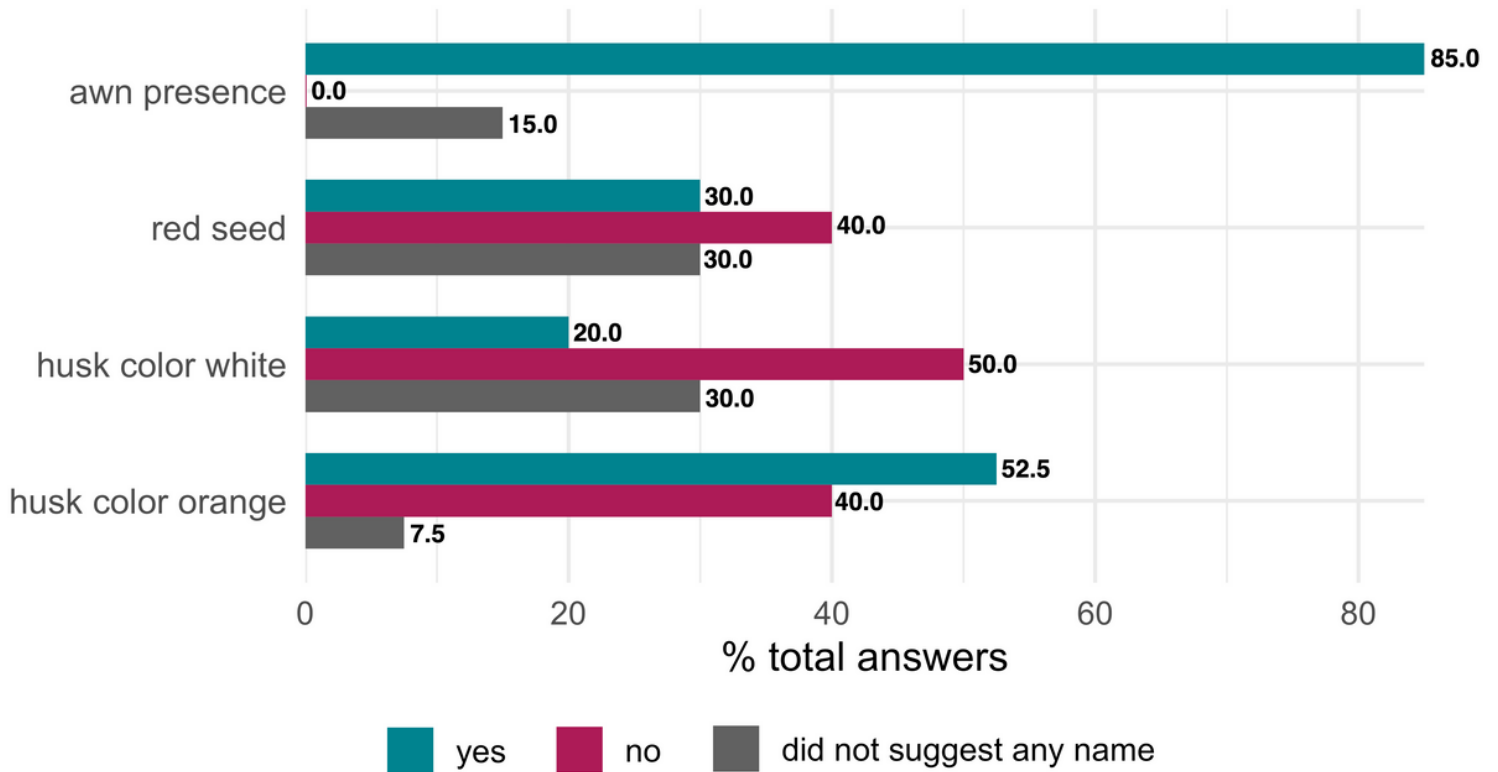
Odina with her mother Sabel threshing her rice in Dangogo 2. Picture: Nicholaas Pinas.



**Figure 7**

Percentages of names in the different categories for all five Maroon tribes.





**Figure 8**

Percentage of farmers (n = 20) who invented names with a morphology component of an unknown variety.

## Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [supplementaryfilePinasetal.ricenames.xlsx](#)