



HERITAGE FRUITS CONSUMED BY THE PEOPLE OF THE NYONG AND KELLE DIVISION: CAMEROON

Research Article

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ABSTRACT

The present work aims to show the heritage fruits consumed by the people of the Nyong and Kelle division. Heritage fruits are fruits which come from an area and are consumed by the people of this area for many years; these fruits are bequeathed to the next generation. A systematic survey was carried out to identify heritage fruits in the markets, crop farms and forest of the study area. With modernization heritage fruits are being abandoned by the present generation in the way that if nothing is done some of these heritage fruits will disappear from the consumption chain if they are not bequeathed to the next generation, this will lead to the loss of food identity and acculturation of the population of the study area. In all 34 heritage fruits were encountered and they fell under 21 botanical families according to the Linear Angiosperm Phylogeny Group III classification. Nine of these fruits were not consumed directly but are dried and transformed into spices to season meals. 90 % of these heritage fruit had a market value and are a source of income to this population. The physico- sensory properties of these fruits were given with the largest part of fruit having a humid nature; the color of the pulp was reddish, brownish, greenish and whitish. Most of the fruit tasted sweet, the large part of the shape was ovoid. Some of these heritage fruits trees are used in folk medicine by the population to relief

from certain illnesses. The present study promotes heritage fruits, sustainable development and empowerment of the rural population.

Key words: Cameroon, Folk medicine , Income, Identity, Traditional fruit

I. INTRODUCTION

African forests are a huge reservoir of biodiversity and their ecological functions are essential for humanity. The forest plays an important role in meeting many basic needs of local populations. They provide wood, energy and contribute to the meeting of nutritional needs, in particular for the most vulnerable social groups. Wild edible plants represent plant species that are collected from surrounding ecosystems for human consumption but are not cultivated [1]. They play an important role in the life of a large part of the populations of developing countries where they are generally used for medicinal care.

The world production of fresh, processed fruits and vegetables is of the order of a billion tones, 55% of which is provided by vegetables [2]. World trade of fruit and vegetables is about seventy-five (75) million tones and exceeds \$ 55 billion which represents more than 15% of world trade in food products.

In Cameroon, this market is growing in relation to the extension of urban markets and the emergence of intra-regional or regional trade. This growth is poorly understood due to the inexistence and insufficient quality statistics [2]. The annual value of the wild plum (*Dacryodes edulis*) sold reaches 7.5 million US dollars, or more than 4 billion CFA Francs in Cameroon. Most of these forest products are sold in local and regional markets [3]. Their trade worth several million Euros and goes well beyond local markets in Cameroon. Wild plum (*Dacryodes edulis*), *Ricinodendron heudelotii*, (condiment), wild mango (*Irvingia spp.*) and cola nut are sold in the urban markets of Douala and Yaoundé, where the annual sales figure of these forest products are estimated at more than 100 million CFA francs [3]. However, the forest of Cameroon, one of the major components of the forests of the Congo Basin, does not escape to the degradation of the environment. The local populations already possess these resources which they have exploited for several years and have an immense knowledge and know-how in terms of conservation, sources of energy and food [4, 5].

Heritage represents the goods we get from our parents and which we must pass on to future generations. Heritage fruits are the fruits consumed by our fore fathers which they bequeathed to us so that we too must pass on to future generations. Most of these fruit trees grow spontaneously in nature without cultivation or are consumed by the people of the area for almost thirty five (35) years. The majority of these fruits are poorly understood by today's generation due to Westernization or the alienation of products from industrialized countries. It is therefore important to know these fruits that our ancestors consumed and then pass them on to future generations, if nothing is done to promote these fruits they will disappear from the consumption chain and this will lead to the loss of the food identity of these people.

Studies have been done in Cameroon concerning fruits [2, 3, 6]. Few studies have been carried out concerning the Nyong and Kelle division which is a humid forest zone with a great biodiversity concerning heritage fruit trees. Some of these fruits are dried and transformed into spices for seasoning dishes during cooking. The large part of these fruit trees, whether the roots, leaves, bark and buds, are used in traditional medicine, which is not insignificant given the resilience of the African continent to the covid 19 pandemic. The aim of the present study is show heritage fruits consumed by the people of the Nyong and Kelle division which are on the way of disappearing so that we can valorize and know the existing ones.

II MATERIALS AND METHODS

II.1 Study Site

II.1.1 Site location

The Nyong and Kellé division (3 ° 54 - 3 ° 58 'N and 10 ° 47' - 10 ° 49 'E), located in the center region is among the ten regions that Cameroon has. The total surface area of the study site is 6,362 km², or 11% of the total area of the region. The Division owes its name from two rivers, the Nyong and Kellé Rivers. The Division comprises ten (10) sub divisions with the head quarter of subdivision and Division been Eséka as seen in *Fig. 1*.

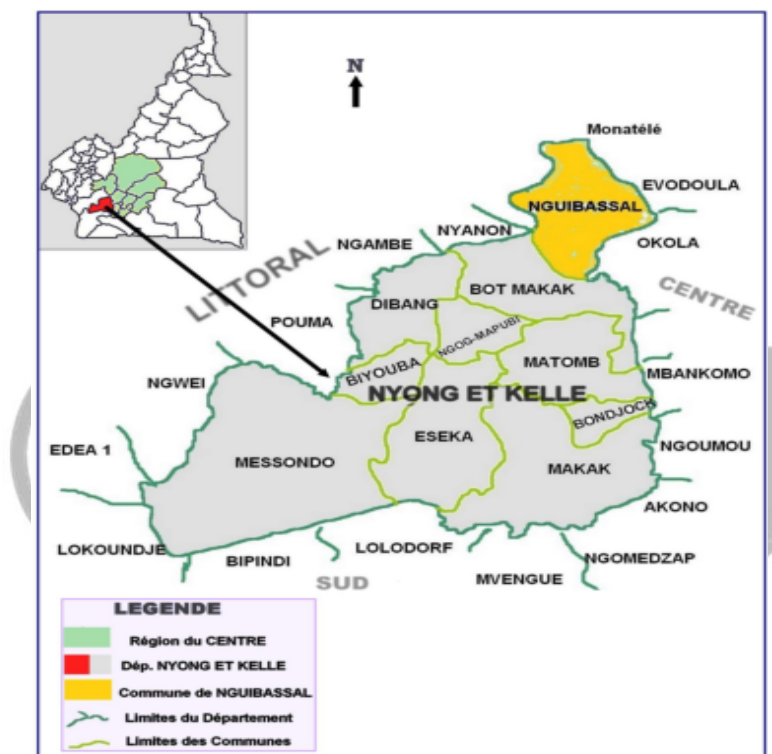


Fig.1. Study site

II.2 Sampling

The sampling concerned different traditional fruits. Samples of these heritage fruits were obtained by purchasing, picking and harvesting in the villager's forest of the study area.

II.3 Division of the study area

Using the administrative map, the studied area was divided into Division, subdivisions and villages [7]. The Nyong and Kellé is made up of ten subdivisions (Biyouha, Bondjock, Botmakak, Dibang, Eséka, Nguibassal, Makak, Ngog mapubi, Matomb and Messondo,) were the first unit for the inventory of traditional fruits in different markets. The villages were the last fruit inventory unit in the crop farms and forest of the study area.

II.4 Preparation of the survey

The survey sheets were drawn up on the basis of criteria characterizing heritage products (know-how, typicality, history and environmental sustainability) [8]. The survey sheets were

made up of open and closed questions. These questions range from the nature of the fruit to how the fruit is eaten. The purpose of the survey sheet was to establish a product description sheet

II.5 Field work

II.5.1 Preparatory phase of fieldwork

During this preparatory phase, a telephone directory was established and appointments were made with the mayors of each council. A telephone directory was compiled with the help of the website of the Cameroon united council.

II.5.2 Survey

Field visits to various markets took place during the period April 4th to June 6th, 2018. During field visits when a heritage fruit was encountered in the market, it was purchased and the owner of the product was been questioned. During the interview, notes were taken on the local name of the product, its scientific name if possible and its uses were noted. Otherwise, a herbarium was made for future identification at the national herbarium of the Institute of Agricultural Research for Development (IRAD). Photographic shots of the heritage fruits were been taken. The second phase of the field visits to the villages took place during the period of August to September of the same year. The village head of each locality was met and the purpose of my presence was notified to him. A member of the council of elders was entrusted to me; with him the inventory of heritage fruits was made in the crop farms and in the forest.

III. RESULTS AND DISCUSSION

III.1 Heritage fruits

Heritage fruits consumed by the populations of the Nyong and Kelle division are thirty-four (34) and among these fruits we met fruits such as *Locarpolobia alba*, *Ancistrocarpus densispinosus* and *Artocarpus altilis* which were not encountered in the previous work of [3] which relied on fruit trees present in Cameroon. The work of [3] was extended throughout the Cameroonian territory while the present study limited itself only to the Nyong and kelle Division which shows that this study area is rich in the biodiversity of heritage fruits (as shown in Table1).

Table 1. Heritage fruits consumed by the people of the Nyong and Kellé division

SN	Scientific names	Family	Local names
1	<i>Antrocaryon klaineinum</i> Pierre	<i>Anacardiaceae</i>	Ngonga
2	<i>Trichoscypha acuminata</i> Engl.	<i>Anacardiaceae</i>	Ndoi
3	<i>Trichoscypha abut</i> Engl.	<i>Anacardiaceae</i>	Ndoi bako
4	<i>Spongias cytherea</i> Sonner	<i>Anacardiaceae</i>	Kassi mango
5	<i>Mangifera indica</i> L	<i>Anacardiaceae</i>	Ndjangolo
6	<i>Annona muricata</i> L	<i>Annonaceae</i>	Saba-saba
7	<i>Elaeis guineensis</i> Jacq.	<i>Arecaceae</i>	Ton
8	<i>Cocos nucifera</i> L	<i>Arecaceae</i>	Mbondo

9	<i>Dacryodes macrophylla</i> (Oliv lam)	<i>Burseraceae</i>	Ndodom
10	<i>Dacryodes edulis</i> (G Don) lam	<i>Burseraceae</i>	Ntoro
11	<i>Canarium schweinfurthii</i> Engl.	<i>Buseraceae</i>	Ntoro he he
12	<i>Ananas comosus</i> Merr	<i>Bromeliaceae</i>	Nton lilan
13	<i>Carica papaya</i> L	<i>Caricaceae</i>	pohpoh
14	<i>Garcinia kola</i> Heckel	<i>Clusiaceae</i>	Nyei
15	<i>Irvingia gabonensis</i> (Aubry.lec.exORorke)	<i>Irvingiaceae</i>	wiba
16	<i>Persea americana</i> Mill	<i>Lauraceae</i>	Pia
17	<i>Ancistrocarpus densispinosus</i>	<i>Malvaceae</i>	Ndjango nko
18	<i>Pecta clethra macrophylla</i> Benth	<i>Mimosaceae</i>	Bambar
19	<i>Artocarpus altilis</i>	<i>Moraceae</i>	Hionde nkana
20	<i>Psidium guajava</i> L	<i>Myrtaceae</i>	Ngouaban
21	<i>Coula edulis</i> Baill	<i>Olacaceae</i>	komol
22	<i>Uapaca guineensis</i> Mull.Arg.	<i>Phyllanthaceae</i>	Sem
23	<i>Locarpolobia alba</i>	<i>Polygaceae</i>	Hipagui
24	<i>Citrus reticulata</i>	<i>Rutaceae</i>	mandarine
25	<i>Citrus maxima</i> Merr	<i>Rutaceae</i>	Pampele
26	<i>Citrus sinensis</i> Obeck	<i>Rutaceae</i>	Hipouma
27	<i>Citrus limon</i> Burm.f	<i>Rutaceae</i>	Hipouma mbele
28	<i>Baillonella toxisperma</i>	<i>Sapotaceae</i>	Ndjap
29	<i>Cola acuminata</i> (P.Beauv.)Schott	<i>Sterculiaceae</i>	Libel
30	<i>Cola pachycarpa</i> K.Schum	<i>Sterculiaceae</i>	Kom moye
31	<i>Myrianthus arboreus</i>	<i>Urticaceae</i>	likokom
32	<i>Vitex doniana</i> Sweet	<i>Verbenaceae</i>	Evovoulan
33	<i>Aframomum limbatum</i> (Oliv&Hanb)K.Schum	<i>Zingiberaceae</i>	bibogui
34	<i>Aframomum melegueta</i> (Roscoe)K.Schum	<i>Zingiberaceae</i>	Ndon

III.2 Presentation of heritage fruits

Heritage fruits consumed by the people of Nyong and Kellé Division are either eaten raw or cooked as seen in Fig.1. The fruits appear after the flowering of the plant, the whole fruit can be eaten or the seeds only. The fruits consumed fall into twenty-one (21) botanical families, excluding the families of fruits used as a spices (as shown in Table3).



Antrocaryon klaineianum



Trichoscypha acuminata



Trichoscypha abut



Spongias cytherea



Mangifera indica



Annona muricata



Elaeis guineensis



Cocos nucifera



Ananas comosus



Dacryodes edulis



Canarium schweinfurthii



Carica papaya



Garcinia kola



Irvingia gabonensis



Citrus maxima



Persea americana



Citrus sinensis



Citrus limon



Baillonella toxisperma



Cola acuminata



Cola pachycarpa



Cola pachycarpa



Myrianthus arboreus



Aframomum limbatum



Ancistrocarpus densispinosus



Artocarpus altilis



Pectaclethra macrophylla



Psidium guajava



Coula edulis



Uapaca guineensis



Locarpolobia alba



Citrus reticulata



Aframomum melegueta



Dacryodes macrophylla



Vitex doniana

Fig. 2. Fruits consumed by the people of the Nyong and Kellé Division

III.2.1 Family of Anacardiaceae

Antrocaryon klaineanum

This tree in the Bassa local language is called “ngonga”. This tree is present throughout the Nyong and Kellé Division. The tree can reach 40 m of height and 100 cm in diameter. The leaves are alternate. The fruits are yellow drupes when mature and are green when the fruits are immature. *Antrocaryon klaineanum* produces fruits whose juicy and acid pulp is consumed and is known very little. The fruits are loved by children in the village [3]. The fruits are sold in local markets as seen in fig. 2 A.

Trichoscypha acuminata

This tree is called “ndoi” in the Bassa language. Trees reach over 20 m in height with a small diameter of about 40 cm. The leaves are long and radiating at the top of the trunk as seen in fig.2B. The leaves are imparipinnately compound. We meet the bumps on the trunk which are signs of previous years fruiting. Fruit production is along the trunk. The fruits are clusters of about a hundred drupes. The fruit pulp is fleshy, juicy and red [3] identified this fruit in their study.

Trichoscypha abut

This species is present in all the Nyong and Kellé Division as seen in fig.2C. It can easily be confused with *Trichoscypha acuminata* by the fact that its leaflets are pubescent. The fruits are pale green when immature and when the fruits ripen they turn red. The fruits of *Trichoscypha abut* are larger and sweeter than those of *Trichoscypha acuminata* [3]. It is called “Ndoi bako” in the Bassa language. This tree can reach 15m in height and 30cm in diameter. Its trunk is irregular and its bark has cracks. The leaves are alternate, imparipinnately compound. The fruits are covered with juicy hairs with a seed. *Trichoscypha acuminata* is more domestic in the Nyong and Kellé Division and is found close to a dwelling while *Trichoscypha abut* is found in the forest.

Spondias cytherea

This tree is cultivated throughout the Nyong and Kellé Division and is called “Kassimanga” in the Bassa language as seen in Fig.2D. It is a tree that has variable sizes ranging from 5-20m in height as well as varying diameters depending on the age of the plant. The leaves are alternate compound, pinnate. The fruits are ovoid drupes, fleshy orange-yellow pulp, endocarp nucleus lined with thorns. The part of the plant that is known to be used is the fruit. The fruit of *Spondias cytherea* is fibrous, sweet, juicy and slightly acidic flesh. Fruits are ripe when they are yellow in color and green when immature. Fruits can be use juice to make a refreshing drink. The fruits of *Spondias cytherea* are sold in all markets and are a source of income for the people of the study are [3] Identified this tree in their study.

Mangifera indica

This tree is from the Anacardiaceae family and can reach 10-15m in height. The fruits are berries with a seed inside. In the Nyong and Kellé Division, there are several varieties. The variety known here is that commonly called "the southern mango". It is found next to dwellings

planted by the people and others grow in the bush as seen in Fig.2E. Apart from the fact that the fruits are eaten and much appreciated. A difficulty may arise to prove the heritage nature of this fruit, but heritage fruits are fruits that are consumed by a population over approximately one generation that covers about thirty years(35) ([9] and this can be proven through history.

Annona muricata

This shrub is called in “saba saba” in the Bassa language, this shrub is planted near homes. The shrub height can reach 8-10 m in height. The leaves are simple alternate. The fruits are ovoid berries. Flowering and fruiting are continuous throughout the year. The leaves give out a scent. The fruits are usually harvested when they mature from the tree. The fruits are consumed directly and juices are made from this fruit and are sold at remarkable prices as seen in Fig.2F.

III.2.2 Arecaceae family

Elaeis guineensis

The fruits of this tree are the mainly used for the production of palm oil. This tree grows spontaneously in the bush as seen in Fig. 2G. The branches are twigs with thorns. The first palm nuts are observed from the third year. In terms of food, palm nuts can be eaten cooked or raw. The nuts are boiled in a pot with water. They are then looted in a mortar and a palm nut paste is obtained. This paste is a mixture of the fleshy part and the palm nuts. Water is poured into the paste to obtain a liquid or a palm nut soup which is used in the composition of several dishes consumed by the people of Nyong and Kellé Division. It was reported by [10] that palm oil has exceptional high carotene content.

Cocos nucifera

The coconut tree is a large, relatively thin and rarely straight, thorn less palm that can reach 20 m - 25 m in height as seen in Fig.2H. Its crown can include more than 25 pinnate-type palms, 4 to 6 m long. The coconut tree develops flowers and fruits throughout the year. The water inside a coconut provides a refreshing drink and has medicinal benefits. It was reported by people of the study area that the water contained in coconut is poured over the heads of children so that they can grow tall. The almond (pulp) is eaten fresh. The almond is also used to make a kind of coconut sweet sold by street-side traders and in supermarkets. The shell of the coconut palm fruit is often used for making coconuts traditional cups which are used in the village to drink palm wine.

III.2.3 Burseraceae family

Dacryodes macrophylla

This tree is called “ndodom” in the Bassa language. It is a tree that can reach up to 20 m in height and 90 cm in diameter. The leaves are opposite alternate imparipinnate. The mature fruits are red to dark purple globulous drupes as seen in Fig.2H1. The fruits are green when immature and turn purple when ripe. It has a juicy, bright red fleshy pulp. Only one part of *Dacryodes macrophylla* use is known is the pulp contained in the fruit. This juicy pulp can be consumed directly or used in the preparation of juices. The fruits have an economic value and are a source of income for the village populations.

Dacryodes edulis

The forest origin of plum explains its classification among non-timber forest products (NTFPs) such as *Ricinodendron heudelotii*, *Cola acuminata* and wild mango. Plum is also referred as an agro-forestry product because today it is hardly ever harvested in the forest. It has been transferred over time to the agricultural world by the populations who consume it as seen in Fig. 2J. Plum is now part of life of the populations, it has seen its production, processing and marketing benefit from traditional know-how. Plum is therefore also a traditional food product in the same way as food products such as bananas, okra, cassava, taro etc. Fresh plum is the one that does not undergo any processing before reaching the end consumer. The production period of the plum varies from May to September. The diameter of the plum tree oscillates between 3 and 18 cm. Its shape can be oblong, conical, oval, and globular, with longitudinal grooves. The color of the epicarp (skin) is pink at the young stage, turning purplish-blue, greenish, blue variegated with pink or whitish when the fruit reaches maturity. The mesocarp (pulp) which is the edible part can be whitish, greenish or yellowish. The fruits of *Dacryodes edulis* abound in all ten sub divisions of the study area to such a level that traders from Gabon and Equatorial Guinea come to obtain them locally. The fruits are eaten boiled, roasted, fried, much appreciated with cassava tubers and roasted plantain. Fruits are rich in fat.

III.2.4 family of Bromeliaceae

Ananas comosus

Pineapple is a multi-fruit plant. The fruits are berries. It is a perennial herbaceous plant, 1-1.5m tall. Pineapple can be grown from the substrate produced at the top of the fruit. The flesh of pineapple is used to make fruit juices as seen in Fig.2I.

III.2.5 family of Caricaceae

Carica papaya

They are dioecious plants with a height sometimes reaching 10-20 m. Pawpaw trees grow alongside houses and sometimes spontaneously in the bush when the seeds are thrown in the bush. There is a variety of forms of pawpaw fruits. The plant can produce fruit several times during a year as seen in Fig.2L.

III.2.6 Family of Clusiaceae

Garcinia kola

It is a plant that is sometimes cultivated. It is a large tree that can reach 40 m in height and 100 cm in diameter. The leaves are simple opposites, the fruits are berries. We can find 1-4 seeds per fruit as seen in Fig.2M. The parts used are the fruit, bark and wood. The part of the fruit pulp adhering to the seed is edible. Slightly acidic and bitter, its seeds are chewed like the nuts of *Cola acuminata* and used as a stimulant or aphrodisiac. The seeds and bark of *Garcinia kola* are mixed with palm wine to increase the alcohol level of palm wine. Chewed *Garcinia kola* seeds help against indigestion. *Garcinia kola* seeds have national and even international fame with great economic value. Seeds are sold according to size.

III.2.7 Family of Irvingiaceae

Irvingia gabonensis

The fruit of *Irvingia gabonensis* is eaten directly and the dried almond is used as a spice. This is a tree reaching 40 m in height: usually straight up to 100 cm in diameter with buttresses up to 3 m in height. The bark is smooth, scaly, gray to gray-yellow. The leaves are alternate, simple. The inflorescence is axillary. The fruits are ellipsoid to cylindrical sometimes almost spherical drupes, green smooth when ripe. The pulp is bright orange, tender juicy, sweet to slightly bitter with little fiber as seen in Fig.2N. [3]. The fruits are picked up by local residents when they fall on the ground. The almond is gotten in two ways, either by making a longitudinal cut of the fruit, or by allowing the fruits to rot and have their fleshy parts removed. To easily remove the skin from the almond, they are soaked in water between twenty (20) and thirty (30) minutes. The almonds obtained are dried under the sun or in the attic. *Irvingia gabonensis* has a peculiarity that the fleshy part is eaten directly fresh and the almond is used as a spice to season dishes. The fruit in the Bassa language is called "Wiba".

III.2.8 Family of Lauraceae

Persea americana

There are a multitude of varieties of avocados in the Nyong and Kellé Division. These avocados have a multitude of shapes but all are green when immature. At maturity others change from green to black as seen in Fig.2P. Or remain green. Some varieties are called "butter avocado" because they remain compact when they become tender and are very much appreciated by people. There are some very low-favored varieties that have water inside when they become tender.

III.2.9 Family of Malvaceae

Ancistrocarpus densispinosus

The plant of this family is a liana that produces fruit with thorns. This fruit is eaten by the populations of Nyong and Kellé Division as seen in Fig.2Y. This plant is a liana; it surrounds trees that can reach more than ten meters in height. It has opposite leaves along the stem. The fruits are green when immature and turn yellow when ripe. This plant is present in all ten sub divisions of the study area. It is called "Ndjango nkoo" in the Bassa language. Before consuming this fruit, its epicarp is get rid and then the fruit is sucked. The fruit is slightly sweet with a cheese-like background. The fruits of this plant are not marketed in all the Nyong and Kellé Division and the younger generation is unable to identify and consume it.

III.2.10 Family of Moraceae

Artocarpus altilis

Artocarpus altilis is a plant of the Moraceae family; this tree is called "bread plant" in English and "Hionde nkana" in Bassa language as seen in Fig.2Z. *Artocarpus altilis* has been consumed for a long time in the study area. The seeds are eaten cooked and are much appreciated by the people of the study area. Generally the fruit is thorny and when it becomes ripe it falls off the plant on the ground and the populations collect the fruit and remove the seeds which are

surrounded by filaments. The tree can flower and fruit all year round [11]. It grows in a wide variety of climates and can even grow at an altitude of almost 1550 m [12]. It is an evergreen tree 12-15 m high with 0.3-1 m in diameter [13]. The leaves are alternate, broad, shiny, dark green in color. The fruits are often round, oval or elongated weighing 0.25-5kg. The milky white latex is present in all parts of the plant.

III.2.11 Family of Mimosaceae

Pentaclethra macrophylla

Tree of the Mimosaceae family which can reach 30 m in height and 80 cm in diameter. This tree is called “bamba” in the Bassa language. This tree grows in all the forests of the study area. The leaves are alternate, bipinnate. The fruits are woody pods. The seeds are 5-8 per fruit, oval, reddish brown and shiny. The seeds are roasted before being consumed. The seeds are sold in the markets of the study area as seen in Fig.2A₁.

III.2.12 Family of Myrtaceae

Psidium guajava

This family is represented by the guava tree which is a shrub of about 3- 8 m in height with opposite single leaves. The bark of the guava tree is covered with rhytidoma that often peels off from the main bark. The bark is smooth. The fruits are spherical with several seeds as seen in Fig.2B₁. There are two varieties, those with sweet fruits taste and others with sour fruits taste.

II.2.13 Family of Olacaceae

Coula edulis

The tree can reach up to 30m in height and 80cm in diameter. It belongs to the Olacaceae family. It is called “komol” in the Bassa language. The leaves of this tree are simple alternate. The fruits are hard rough globular drupes, the seed is single per fruit as seen in Fig.2C₁.The seed can either be eaten raw or cooked in a traditional way. The fruits *Coula edulis* are sold along the streets of the study area and are a source of great income to the people of the study area. The seeds are sold all over the markets of the country. This almond which is consumed can last for several years without getting bad. The almond is oleaginous.

III.2.14 Family of Phyllanthaceae

Uapaca guineensis

The tree is called “sem” in Bassa language. This tree can reach 30 m in height and 20 cm in diameter with alternate leaves on the stems. This tree typically grows in swampy areas with stilt roots. The fruits are green when immature with brown spots. When ripe, the fruits take on the brown color. The fruits are collected from the ground by the individuals when they fall off the tree. The fruit is squeezed and then its epicarp is removed. The fruit contains three seeds coated with a brown pulp which is sucked as seen in Fig.2D₁. The pulp is sweet and is much appreciated by taste. The leaves of this as reported by the local population are used to remove ill luck when someone takes a bath with these leaves.

III.2.15 Family of Polygaceae

Locarpolobia alba

It is a shrub that can be found near homes. This shrub is like for the strength of its wood. The villagers use its stems to set the traps and its stems are hardly crushed by the prey when caught by the traps. The shrub has small, alternate leaves. The shrub produces fruits which are eaten directly as seen in Fig.2E₁. The fruits are orange in color with two seeds. The fruits are green when they are immature. The fruits when sucked have a sweet juice. It was reported by the elders that this tree is used to remove mystical powers and bad luck.

III.2.16 Family of Rutaceae

Citrus reticulata

Several varieties of mandarins are encountered, which generally change color, from green to orange color, others which remain invariable regardless of the state of maturity as seen in Fig.2F. Clementine is one of the favorite for consumers because it peels easily and contains few seed. Mandarin ripens a month later than clementine, which clementine often replaces other varieties. Mandarin is rich in vitamin C, it strengthens the immune system. This citrus fruit is antioxidant and anti-inflammatory and could play a role in the prevention of certain cancers, in particular of the colon and cardiovascular diseases.

Citrus maxima

Citrus maxima is a species of fruit trees called grape fruit which belongs to the Rutaceae family. The fruit is quite big as seen in Fig.2O. It can measure up to 8 m in height. The color of its bark is green or yellowish. The leaves are broad. The fruits are spherical or more or less flattened, it can weigh from 500g to 8 kilograms, which makes it the bulkier of citrus fruits. Known to be sour and bitter, due to the presence of naringoside (flavonic heteroside), the flesh is juicy and enter in the treatment of certain illnesses.

Citrus sinensis

When harvested, the orange is a fruit that weighs an average of 200g. An orange is made up of a thick, rough skin that contains very juicy flesh that is divided into quarters. *Citrus sinensis* fruits are among the most popular fruits in the country because of its sweet flavor. There are several varieties of oranges as seen in Fig.2Q. Oranges are generally eaten as a desert after a meal. Apart from the food function, the different parts of the orange including the leaves and peel are used in traditional medicine. Orange leaves are used in the treatment of typhoid fever. An infusion of the leaves of the orange helps calm nerves. Putting a few orange peels in your shoes will help ward off bad smells.

Citrus limon

The lemon tree is a tree six to eight meters in height, with generally red shoots. It has relatively light green evergreen leaves, oblong lanceolate with an articulated blade with petiole as seen in Fig.2R. The fruit, yellow, lemon is an oval berry with a more or less thick skin with a juicy and sour pale yellow pulp. Lemon contains a few seeds with white cotyledons. Lemon is used in the treatment of several diseases in the traditional medicine of the people of the study area.

III.2.17 Family of Sapotaceae

Baillonella toxisperma

Very large tree of the Sapotaceae family that can reach more than 50 m in height and a diameter of 4-5 m, called "Njap" in the Bassa language. Its stem is remarkably straight and cylindrical. The branches are large and spreading. Its bark is reddish, dark deeply cracked. The leaves are simple grouped. When the bark is injured, a white exudate flows abundantly. Fruits are strong-smelling berries with one to three seeds per fruit. The pulp of the fruit of *Baillonella toxisperma* is eaten fresh as seen in Fig.2S. Almonds produce an essential oil that is highly valued both medicinally and culinary [14]. Flowering is around the period of February-April and fruiting around June-July. The seeds of *Baillonella toxisperma* are used for the production of an essential oil which is much appreciated by the populations of the study area and is a source of income. It is also reported that the oil extracted from the seeds of *Baillonella toxisperma* has great medicinal properties. Medicinally, the oil is used to treat skin conditions and rheumatism [15]. In the Mount Cameroon region, the bark is used to treat infertility and other gynecological problems in women [16]. The almond is udder for decoration in homes and is worn by people as a jewel.

II.2.18 Family of Sterculiaceae

Cola acuminata

This tree that can reach 20 m in height and 50 cm in diameter. The leaves are simple alternate. The fruits are capsules. The seeds are surrounded by a white or red aril seen in Fig.2T. The parts used are nuts and bark. Among the Bassa the cola nut is a symbol of unity. Cola enhances the flavor of palm wine as evidenced from drinkers of this traditional drink. The seeds of *Cola acuminata* are used as a stimulant and aphrodisiac for men. The seed of *Cola acuminata* is usually divided into several quarters and shared to others as a sign of unity. There are varieties of colors (red and white) of cola seeds. Kola nuts are donated by the groom to the in-laws during wedding ceremonies. Cotyledons are thrown on the ground to know a "hidden truth". *Cola acuminata* is the object of significant trade within the country. They are sold according to the size of the kola nuts.

Cola pachycarpa

This is an undergrowth shrub that can reach 15m in height and 10-15cm in diameter. There are two varieties called "komngoi" and "kom moyé" in the Bassa language. The first variety "Kom ngoi" its capsule is black while the variety "Kom moye" its capsule is red and its fruits are larger than the other variety as seen in Fig. 2 U, V. The leaves are digitate and alternate compound. The fruits are red or black capsules depending on the variety. The shape of the fruit is like that of *Cola acuminata*. The fruits appear on the stem. There is always a small amount of water in the fruit, the properties this water are unknown. The seed is surrounded by a white film that is sweet to the taste and crunchy. Almond is used for teeth whitening. The only used part of *Cola pachycarpa* is its white aril.

III.2.19 Family of Urtiacaceae

Myrianthus arboreus

This tree is present in the tropical forest and it is named “likokom” in the Bassa language and “monkey pine apple” in the French language. This plant is present throughout the study area. It is a shrub that generally grows in a secondary forest. It can reach 5-10 m in height with a small diameter. Fruits at immaturity are green and turn yellow when they reach maturity as seen in Fig.2W. Generally the ripe fruits fall off the plant to the ground and are picked up by the populations. The fruit is divided into several quarters, the quarters are torn off and each quarter has a seed inside which is sucked. The juice that comes out is sweet. Commercially, these fruits in the study area have no market value since they are not sold. However, these fruits are found in the Mfoundi market in the political capital of Cameroon. This fruit has a storage problem; it gets rotten within a few days. It should be consumed very fast.

III.2.20 Family of Verbenaceae

Vitex doniana

This a tree that can reach up to 20 m high and 80 cm in diameter, with a ball crown and fairly dense; short bole more or less twisted; bark is gray to light brown, finely and longitudinally fissured, slightly scaly, slice yellowish quickly turning brown in appearance. Leaves are opposite, digitate compound, 3- (5) -7) leaflets. The fruits are drupes 1.5-3 cm in diameter, with a cup at the base, greenish, then orange-yellow speckled with white, finally black when ripe; dark purple pulp with a hard core. There are 1-4 seeds per fruit as seen in Fig.2I₁.

III.2.21 Family of Zingiberaceae

Aframomum limbatum

This variety is called "bibogui" in the Bassa language as seen in Fig.2X. *Aframomum limbatum* has a rounded shape with a larger size than the different varieties. The fruits are green when immature and turn red when ripe. Inside its epicarp there is white foam mixed with small seeds having a sweet taste.

Aframomum melegueta

It is a rhizomatous perennial herb; leafy stem up to 2 m tall. Leaves are sessile to sub sessile as seen in Fig.2G₁. The fruits are capsules with many seeds surrounded by a layer. This herb is called "ndôn" in the Bassa language. *Aframomum melegueta* seeds are pungent when chewed. The seeds of this herb are mixed with another herb to help ward off bad dreams. The fruits are used in words of blessing by the patriarchs, (mbombog) they chew the seeds first before blessing you. They spray you with saliva mixed with the seeds in the Bassa tradition. They are used to treat coughs. The seeds are eaten with palm wine. The seeds are also known to have aphrodisiac properties and increase virility in men. *A. melegueta* mixed with another plant is used as a suppository against hemorrhoids

III.2 Medicinal use of the identified fruit trees

The majority of fruit trees recorded do not only have a food value. After questioning the elderly people who have certain knowledge at the cultural level, we have been able to identify the medicinal properties of certain trees because the majority of drugs prescribe by physicians in hospitals; their healing properties come from plants (as shown in Table 2).

Table.2 Medicinal properties of fruit trees consumed by the people of the Nyong and kelle Division

SN	Plant	Medicinal Uses
1	<i>Antrocaryon klaineinum</i>	The boiled bark is used as an enema in women to unblock the tubes in women; Its bark treats chickenpox; Sucking fruit improves eyesight.
2	<i>Trichoscypha acuminata</i>	Its boiled bark is used as an enema in women who have just given birth to stop the bleeding; Fruits strengthen red blood cells.
3	<i>Mangifera indica</i>	The leaves are used in the treatment of typhoid fever and malaria; “Boiled bark enema is used to treat amoebic dysentery.
4	<i>Annona muricata</i>	A decoction of the leaves is used to lower blood pressure in hypertensive patients; The roasted and crushed seeds make a powder that can be poured into the meal. This powder helps lower the glycemic index in diabetics; A decoction of the leaves fights cardiac arrhythmias; The seeds can treat heartburn, fever, worms, vomiting.
5	<i>Elaeis guineensis</i>	The seeds are used to make palm kernel oil which heals fontanel in infants; Palm nut soup heals hepatitis.
6	<i>Cocos nucifera</i>	Coconut oil has antiviral, antibacterial properties; A protective effect for the hair.
7	<i>Dacryodes edulis</i>	The leaves in decoction are given to women who have given birth The bark combined with other plants relieves abscesses; Ashes are used as a gargle on burns is a powerful healing agent.
8	<i>Canarium schweinfurthii</i>	Its sap is used as frankincense to send away off evil spirits; The boiled leaves are used as a decoction with other plants to treat coughs The boiled bark is used as a decoction to treat high blood pressure
9	<i>Ananas comosus</i>	Ash from carbonized leaves mixed with palm kernel oil is rubbed on the quid of children who are afraid of extraction; Pineapple peel is used in the treatment of typhoid fever.

10	<i>Carica papaya</i>	The seeds treat intestinal worms; The leaves, roots, bark are used in the treatment of malaria and typhoid fever.
11	<i>Garcinia kola</i>	The seeds provide relief from stomach bloating, indigestion and are aphrodisiacs.
12	<i>Pentaclethra macrophylla</i>	The seeds are worn around the neck as a bracelet and hang on the walls of houses to keep ophidians away.
13	<i>Ancistrocarpus densispinosus</i>	The cornet leaves are used as eye drops to remove the hematoma from the eye.
14	<i>Psidium guajava</i>	The leaves are used in the treatment of typhoid fever; The leaves are anti-diarrheal.
15	<i>Locarpolobia alba</i>	Fruits increase male virility.
16	<i>Baillonella toxisperma</i>	Its bark is used to treat infertility and other gynecological problems in women.
17	<i>Cola acuminata</i>	The roots and bark are used as tonic drinks and treat dysentery and diarrhea; Fruits are aphrodisiacs
18	<i>Cola pachycarpa</i>	The water in the fruit is used to treat stuttering children; Almond is used for teeth whitening.
19	<i>Myrianthus arboreus</i>	A decoction of young shoots and dry leaves is used to fight anemia

IV. SPICES

A spice is used to describe any aromatic or pungent substance used for seasoning (as shown in Table 3). They come from plants that grow in tropical regions, whose scents are very pronounced. They are found as seeds like ndjansang, bark like Divida tree, or roots like ginger. Most of them come from tropical Asia or the Middle East and tropical Africa. They are generally obtained by drying the plant and / or its transformation as seen in Fig.3. Spices are aromatic with a hot flavor and a warm scent; it adds a hint of mischief to our culinary experiences.

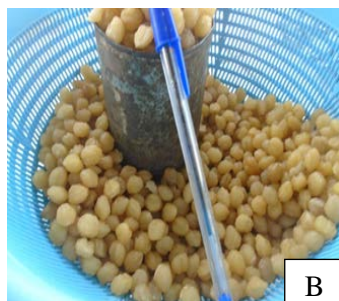
Table. 3 Fruit trees used as spices in the Nyong and kellé Division

SN	Scientific Name	Families	Common name	Part used
1	<i>Ricinodendron heudolotii</i>	<i>Euphorbiaceae</i>	Zambezi almond	Almond
2	<i>Scorodophloeus zenkeri</i>	<i>Fabaceae</i>	Divida	Seeds
3	<i>Tetrapleura tetraptera</i>	<i>Fabaceae</i>	Aldan fruit	Seeds

4	<i>Irvingia gabonensis</i>	<i>Irvingiaceae</i>	Wild Mango	Almond
5	<i>Capsicum frutescens</i>	<i>Solanaceae</i>	Pepper	Fruit
6	<i>Panda oleosa</i>	<i>Pandanaceae</i>	Panda	Almond
7	<i>Aframomum danielli</i>	<i>Zingiberaceae</i>	Alligator Pepper	Fruit
8	<i>Aframomum citratum</i>	<i>Zingiberaceae</i>	Alligator Pepper	Fruit
9	<i>Monodora myristica</i>	<i>Annonaceae</i>	False Ntumeg	Almond



Monodora myristica



Ricinodenron heudelotii



Scorodophloeus zenkeri



Tetrapleura tetraptera



Irvingia gabonensis



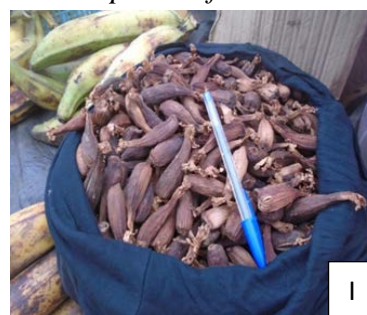
Capsicum frutescens



Panda oleosa



Aframomum citratum



Aframomum daniellii

Fig.3. Fruits used as spices by the people of the Nyong and Kellé Division

Monodora myristica

Tree of the family of the Annonaceae which can reach up to 35 m in height and 50-70 cm in diameter. This tree is called "ikoma" in the "Bassa" language. The tree has simple leaves. The fruit is composed of many seeds of light brown color embedded in a white pulp. The seeds have a pungent flavor and an aromatic smell, condiments and stimulants before use they are previously burnt or grilled as a condiment in the preparation of several Cameroonian dishes (yellow soup, pepe soup, mbôngô djobi, etc.) as seen in Fig.3C. The seeds of *Monodora myristica* are sold throughout the country and even outside the country.

Ricinodendron heudelotii

This plant is called "ndjansang in the Bassa language. It is present in the secondary forest area throughout the study area. It is a tree that can reach 40 m in height and almost 120 cm in diameter. The tree has a smooth, light gray bark. When the bark is injured, a red droplet exudate flows. The leaves are alternate, digitate compound. The fruits are drupes with two seeds. The flowering period is from March to May and fruiting from May to October. The almonds of *Ricinodendron heudelotii* are oleaginous as seen in Fig.3B. Dried or reduced to a paste, they are an ingredient for sauces; they serve as a thickener and flavor enhancer. They are sometimes used in place of peanuts. The leaves are used as food for goats and sheep in the dry season [3].

Scorodophloeus zenkeri

It is a large tree which can reach up to 35 m in height and 200 cm in diameter. The leaves are alternate, paripinnately compound with alternate sessile leaflets. The fruits are pods with one or two oval seeds per fruit. The ripe fruits explode and the seeds fall to the ground and are picked up by the residents. This tree is called "hiomi" in the Bassa language. The used parts of this tree are: bark, leaves and seeds as seen in Fig.3C. The seeds are not eaten directly but as an ingredient to enhance the aroma of many foods. Its bark is burnt and is an important ingredient for the preparation of dishes of "mbongo tchopi" and "Ngwéya" which is mbongo wrapped in leaves among the Bassa. The young shoots of this tree are a spice for many dishes as well as the seeds. [17] reported that *Scorodophloeus zenkeri* seeds are sold in markets in Yaoundé. [18] reported that this spice is used in the preparation of "Nkui and Nah poh" in the western region of Cameroon

Tetrapleura tetraptera

Tree of the Fabaceae family that can reach 25 m in height and 20 cm in diameter. The leaves are alternate bi pinnate. The fruits are indehiscent four-sided pods. The seeds are black flat oval as seen in Fig.3D. The flowering period is from January to April and the fruiting period is from June to July. The tree is called "sassas" in the Bassa language. It is used as a condiment for different kinds of sauces: yellow soup among the Bamiléké or black among the Bassa. The species has been widely valued in different forms: tea, ingredient. It is also a well-known medicinal plant in Cameroon and other African countries. In Cameroon the fruits of *T. tetraptera* are sold and are a source of income for the populations. [17] reported that the seeds of *Tetrapleura tetraptera* are sold in the markets. [18] reported that this spice is used in the preparation of "Nkui and Nah poh" in the western region of Cameroon.

Irvingia gabonensis

This tree is called “Wiba” in the Bassa language and its almond used as a spice is called “Ndogo” as seen in Fig.3E. It is a species from tropical Africa, in dense humid lowland forests, especially formerly inhabited areas [3]. It is found everywhere in the forest zone in Cameroon, except in mountain forests. Tree can reach up to 40 m high and 120 cm in diameter with simple, alternate leaves. Fruits are greenish yellow drupes. The fruits have a very fibrous fleshy pulp with a hard seed coat. The flowering period is from November to March and fruiting from April to July September. The fruits are picked up by local residents when they fall to the ground. The almond can be gotten in two ways, either by making a longitudinal cut of the fruit, or by allowing the fruits to rot and getting rid of their fleshy parts. The seed is broken and the almond taken. To easily remove the skin around the almond, they are soaked in water between twenty (20) and thirty (30) minutes. The almonds obtained are dried under the sun or in the attic. The almond is used to thicken sauces.

Capsicum frutescens

There are several varieties of peppers in the study area. People cultivate pepper in mixed fields with other crops. Pepper has many forms, small and large pepper as seen Fig.3F. Pepper is used to season dishes. The pepper has a pungent taste and is a good source of income for the farmers in the study area.

Panda oleosa

It is a tree of the Pandanaceae family called "handa" in the Bassa language. This tree grows to about 5 m in height and 20 cm in diameter with a leathery white bark as seen in Fig.3G. Flowering is during the month of February and fruiting is during the month of September – October. The fruits are dark green throughout their life. When the fruits reach maturity they fall on the ground and are collected by the women and stored by the river for two months so that the fruit's epicarp decomposes. The almond is surrounded by a very tough shell. In this shell we find eight pistachio-shaped almonds in each pocket. The almonds are detached with a knife and sun-dried for two or three days. The almonds are kept in the calabashes. Before cooking these almonds are roasted like peanuts, are crushed and eaten in the sauce to replace peanuts which are eaten in a dish similar to pistachio.

Aframomum citratum

The fruits of this herb are a great ingredient among the Bassa in many dishes. The seeds when chewed treat stomach aches, coughs, navel aches and fontanel in newborns as seen in Fig.3H. These fruits are sold in many of our local markets and the study area, country and even out of Cameroonian boundaries.

Aframomum daniellii

It is a grass that can reach 2m in height. The plant spreads through its rhizomes where fruits and flowers appear as seen in Fig.3I. It is a fragrant plant through its leaves. It is found in homes and in fields cultivated by local residents. This is the main ingredient in "mbongo tchopi" without this herb; it would not exist because the dish is named after it. The fruit is burnt over charcoal and has a very pleasant smell that can be scented from a distance. Most of these spices are used in traditional medicine to fight certain diseases and infections (as shown in Table 4). Six of

these spices are used in the treatment of certain diseases and help people to relieve certain ailments.

Table .4 Medicinal uses of certain spices

SN	Plant	Medicinal Use
1	<i>Monodora myristica</i>	Vermifuge, treatment of fever, constipation and combats lice
2	<i>Ricinodendron heudolotii</i>	Its sap heals filarial worms. Decoction of the bark treats gonorrhoea. The roots are used to treat diarrhoea and constipation
3	<i>Scorodophloeus zenkeri</i>	Treats constipation. The bark treats coughs, colds and rheumatism. Its bark enema is used to treat navel pain in infants
4	<i>Tetrapleura tetraptera</i>	The fruits are used as an enema for cleansing in women. Fruits cure stomach ache and hemorrhoids
5	<i>Irvingia gabonensis</i>	Its almond lowers the glycemic index in diabetics.
6	<i>Panda oleraceae</i>	Its almond is anti-prostatic

V. Market Value of heritage fruits consumed

Among the fruits consumed there are some that have a market value because these fruits are sold in the markets of the study area and even beyond (as shown in Table5). The populations of the Nyong and Kellé Division often depend on these fruits during their production seasons as a source of income for their well-being. Some fruit have no economic value, that is to say they are not e sold in any market of the study area where they are from. This may be due to the fact that each individual has this fruit at home and no one is willing to pay any franc for what they already have. Despite the fact that these fruits are not sold, they are appreciated in taste and should be valued by the populations of the study area. Among all the fruits inventoried, more than 90% have a market value while less than 10% does not have a market value.

Table. 5 Market value of heritage fruits consumed

SN	Scientific Names	Sales Characteristics Price(FCFA) Unit
1	<i>Antrocaryon klaineinum</i>	25 /2fruits
2	<i>Trichoscypha acuminata</i>	25-50 /Fruit
3	<i>Trichoscypha abut</i>	25-50 /Fruit
4	<i>Spongias cytherea</i>	100-200/ heap
5	<i>Mangifera indica</i>	100- 25/heap
6	<i>Annona muricata</i>	500-1000 /Fruit
7	<i>Elaeis guinneensis</i>	100-200heap
8	<i>Cocos nucifera</i>	100- 500/ fruit
9	<i>Dacryodes macrophylla</i>	500- 1000 heap

10	<i>Dacryodes edulis</i>	100- 1000 heap
11	<i>Canarium schweinfurthii</i>	25 / 2fruits
12	<i>Ananas comosus</i>	200-1000 /Fruit
13	<i>Carica papaya</i>	100- 500/ Fruit
14	<i>Garcinia kola</i>	25-50 / seed
15	<i>Irvingia gabonensis</i>	100-250/ heap 25 – 200/fruit
16	<i>Persea americana</i>	25-300/ Fruit
17	<i>Pectaclethra macrophylla</i>	100- 500/heap
18	<i>Psidium guajava</i>	10- 50 /Fruit
19	<i>Coula edulis</i>	25/Almond
20	<i>Uapaca guineensis</i>	25- 100/heap
21	<i>Citrus reticulata</i>	200-50/ heap
22	<i>Citrus maxima</i>	50-200/Fruit
23	<i>Citrus sinensis</i>	25-100/Fruit
24	<i>Citrus limon</i>	25-100/Fruit
25	<i>Cola acuminata</i>	25-50/Seed
26	<i>Cola pachycarpa</i>	50-200/Fruit
27	<i>Myrianthus arboreus</i>	50- 200/Fruit
28	<i>Aframomum limbatum</i>	50-100 / heap
29	<i>Aframomum melegueta</i>	25- 50 /Fruit

VI. Physico-sensory characteristics of fruits consumed

(As shown in Table 6) it indicates the sensory characteristics of the fruits consumed in the study area. These fruits were arranged as follows: spherical, ovoid, oval, pod and elongated fruit [19]. Their films present five (05) colors brown, greenish, purplish red, orange and black. The edible parts are colored in the following way beige, brown, yellowish, whitish, purplish red, orange and black pulps. Depending on their nature the fruits can be dry *Cola acuminata*, *Garcinia kola* or wet *Ancistrocarpus densipinosus*, *Cola pachycarpa*, *Psidium guajava* while their taste is sweet flavor, then sour and bland.

Table. 6 Physico-sensory characteristics of the fruits consumed

SN	Scientific Name	Color of pulp	Nature	Taste	Shape
1	<i>Antrocaryon klaineanum</i>	Yellowish	Humid	Sour	Ovoid
2	<i>Trichoscypha acuminata</i>	Reddish	Humid	Sweet /Acid	Ovoid
3	<i>Trichoscypha abut</i>	Reddish	Humid	Sweet	Ovoid
4	<i>Spongias cytherea</i>	Yellowish	Humid	Sweet/ sour	Ovoid
5	<i>Mangifera indica</i>	Yellowish	Humid	Sweet	Ovoid
6	<i>Annona muricata</i>	whitish	Humid	Sweet	Oval
7	<i>Elaies guineensis</i>	Yellowish	Dry	bland	spherical
8	<i>Cocos nucifera</i>	Brownish	Humid	sweet	Spherical
9	<i>Dacryodes macrophylla</i>	Purplish red	Humid	Sweet	Ovoid
10	<i>Dacryodes edulis</i>	Greenish	Humid	bland	elongated
11	<i>Canarium schweinfurthii</i>	black	dry	bland	ovoid
12	<i>Ananas comosus</i>	yellowish	Humid	Sweet	Oval
13	<i>Carica papaya</i>	Orange	Humid	Sweet	Spherical
14	<i>Irvingia gabonensis</i>	Yellowish	Humid	Sweet/bitter	ovoid

15	<i>Persea americana</i>	Greenish	Humid	Bland	Oval
16	<i>Ancistrocarpus densipinosus</i>	Yellowish	dry	Sweet	ovoid
17	<i>Pectaclethra macrophylla</i>	Brown	Dry	Bland	Pods
18	<i>Artocarpus altilis</i>	Brownish	Humid	Bland	Oval
19	<i>Psidium guajava</i>	Reddish	Humid	Sweet/Sour	ovoid
20	<i>Coula edulis</i>	Brownish	Dry	Bland	Spherical
21	<i>Uapaca guineensis</i>	Brownish	Humid	Sweet	Spherical
22	<i>Locarpolobia alba</i>	Orange	Humid	Sweet	ovoid
23	<i>Citrus reticulata</i>	Beige Orange	Humid	Sweet	Spherical
24	<i>Citrus maxima</i>	Yellowish	Humid	Sweet/bitter	Spherical
25	<i>Citrus limon</i>	Yellowish	Humid	Sour	Spherical
26	<i>Baillonella toxisperma</i>	Yellowish	Dry	Sweet	Ovoid
27	<i>Cola acuminata</i>	Whitish/reddish	Dry	Bitter	elongated
29	<i>Cola pachycarpa</i>	Whitish	Humid	Sweet	elongated
29	<i>Myrianthus arboreus</i>	Yellowish	Humid	Sweet	Spherical
30	<i>Vitex doniana</i>	Black	Dry	Sweet	Ovoid
31	<i>Aframomum limbatum</i>	Whitish	Humid	Sour	elongated
32	<i>Aframomum melegueta</i>	Whitish	Humid	pungent	elongated

CONCLUSION

The present study records the largest part heritage fruits consumed by the people in the Nyong and Kellé Division. The present work reveals that some fruits are been abandoned nowadays by the present generation and there is a need to preserve these heritage fruits in the consumption chain because these fruits are sources of good health, income and environmental sustainability. This heritage has to be transmitted to future generations. Traditional foods are very important and have stakes in the cultural, political, economic, medicinal, environmental and touristic importance of a country that is why it is important to promote its heritage products which are the identity of the people in the community in which they are found. Heritage is important in the way that UNESCO introduced traditional food as the intangible heritage and some of these heritage fruits can be introduced in the world heritage of UNESCO.

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