JOURNAL OF INTERNATIONAL CRISIS AND RISK COMMUNICATION RESEARCH
ISSN: 2576-0017
2024, VOL 7, NO S7

Medicinal plants of the province of Bagua – Amazonas

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ABSTRACT

One of the problems is the constant use of alternative medicines in urban areas, however the Andean man makes the use of medicinal plants as an alternative healing remedy for disease varieties that occurs day by day, the work has the purpose of knowing the use and benefits and cultural importance within human health, carried in the districts of Bagua, El Parco, Copallín and La Peca in the province of Bagua during the months January to June of the year 2019. Methodology; It has been carried out, taking into account the statistical descriptive method of SPSS Statistic software, it allows us to determine the validity and the level of reliability within them we have the Alpha de Cronbach, Teresen & Ordaz, (2014), considering the surveys applied to the population of the study area to the use of medicinal plants, morphological characteristics of the leaves, stems, flowers, fruits, habitat, taxonomic classifications, labeling each species with its common name, place, date. From the statistical results, the weighted average is estimated to be the maximum is 3.60 and a minimum is 1.00, which corresponds to the question, what part of the plant is used? In the standard deviation a maximum value of 1,320 is determined and the minimum is 0.00 corresponding to the question, do you know any plants that cure any disease? It means that all respondents know the plants that cure diseases. The coefficient of variability has a value of 59.78% and the lower value is 0.00%. The question is: do you know any plant that cures any disease? Being less than 7% is considered accurate, however between the values 25.78 and 59.78% because they are greater than 20%, it is considered to be inaccurate and used only for descriptive purposes. Conclusions, in the supply of medicinal plants to the sick; 94% of people interviewed use the plant as a drink, 2% as food and the remaining 4% use it as external use. Villagers use it for febrile treatments accompanied by other plants.

Keywords: Ethnobotany, medicinal plants, uses, traditional knowledge

INTRODUCTION

Worldwide, the importance of the use of medicinal plants known as healing herbs for different diseases that occurs in vulnerable sectors lacking health centers at the service of rural communities has been considered, however the locals manage for constant use to mitigate certain diseases that occur in the environment where they coexist with nature in such a way as to raise the quality of life.

Medicinal plants in the area of our area are very important in the constant use by the inhabitants of rural sectors; they also fulfill an important function as a source of health, they are oriented to the scientific field that adjusts to the pharmaceutical sciences. Elizagaray and Castro (2013). However, in Peru the richness of medicinal plants is very wide and is framed within more than 4400 species of uses well known to the human population. Brack (1999).

In mention of various ethnobotanical studies such as Alexander Von Humboldt and Antonio Raimondi who referenced more species studied in the department of Cusco, on the other hand the Inca Garcilaso de la Vega in his work "The Royal Comments of the Incas" mentions some species frequently used during the Inca period (Herrera, 1923).
La Torre *et al*., (2006). There are several works published by the Cusco botanist Cesar Vargas, which also includes ethnobotanical studies in the department of Cusco, as well as In the city of Cusco, considered the capital of American culture (a title granted by the American Capital of Culture organization in 2007), the practice of the use and management of medicinal plants continues, most of which come from ancestral knowledge. One of these practices that are still maintained is what during the pre-Inca and Inca cultures were carried out as the exchange or barter of resources from the Andean, Amazonian and coastal areas, which were also taken to important markets in large cities such as Cusco and Cajamarca (Garcilaso, 1971).
From the beginning, man used plants to take care of himself and prevent diseases. Over the centuries, this knowledge, which is traditional medicine, developed and was transmitted verbally from generation to generation. Indeed, traditional medicine is highly developed and used by rural populations and can be a solution to problems of access to health centers, or the cost of treatments. Currently, one of the concerns of the countries of the Andean subregion is to preserve this knowledge and, on the other hand, to try to integrate it into traditional health medicine (Jean-Philippe Le Loc'h, 2014).
Medicinal plants contribute to the importance of the health of local communities, which are frequently used by rural dwellers and are considered to be used; they also play an important role as a source of health. The scientific field that is the subject of this analysis by bibliometric techniques is subject to the sector of pharmaceutical sciences, medicinal plants and natural products (Elizagaray & Castro, 2013).

The use of herbs as a curative remedy for various diseases is recognized and embraced by different developing countries, which is essential to raise the quality of life of their citizens. However, vegetative typologies, the environment in which their applications in medicine live, the conservation of species, among others, have been studied, and have ruined a widely defined scientific universe (Elizagaray & Castro, 2013). In addition, in the study by Bussmann & Sharon (2006), in all of northern Peru with a general inventory of medicinal species, they cataloged a total of 510 species, of these 207 are used in magical-religious healing practices, 95 are used in conditions related to the respiratory system, 85 to urinary tract disorders, compared to our study differs notably since respiratory and urinary tract conditions were not considered with greater relevance. In Cusco, other conditions treated are digestive and bronchopulmonary, the latter mainly related to changes between the dry and rainy seasons (Huamantupa *et al.,* 2011).

MATERIALS AND METHODS

The research project aims to learn about medicinal plants using descriptive methodology; considering the medicinal use, the morphological characteristics, that is, the shape of the leaves, stems, flowers, fruits, habitat; for sampling, each species has been classified by labeling it with a common name, place, date; then it is contrasted with information related to work, visits to the website, electronic texts, scientific articles, information from the regional government.

Study Area

It was carried out in the districts of Bagua, El Parco, La Peca and Copallin in the province of Bagua, Amazonas region, located in the Amazonas region at an altitude of 420 meters above sea level between coordinates 5°46'48" south latitude and 78°26'24" west longitude. The geographical characteristics of different study areas present a biological diversity covered with different vegetative species, ranging from smaller shrubs to large tree species.

POPULATION AND SAMPLE

Population

The samples collected of the medicinal plants have been in the different hamlets and/or population centers of the districts of Bagua, El Parco, La Peca and Copallin between the ages of 18 and 70 years.

Sample

The procedure used for this research work is through random probabilistic sampling, which allows us to determine the validity and level of statistical reliability within them we have Cronbach's Alpha (Teresen & Ordaz, 2014).

STATISTICAL ANALYSIS

Content validation by experts

The Content Validity Index (CVI): Lawshe (1975) proposed a validity index based on the assessment of each of the test items by a group of experts as necessary, useful and essential. The index is calculated using the following formula:

$$IVC = \frac{n_e - N/2}{N/2}$$

Where: ne is the number of experts who have assessed the item as essential and N is the total number of experts who have assessed the item.

Then the LCI for the entire instrument is obtained with the formula, (González, 2010):

$$CVI = \frac{\sum_{i=1}^{M} CVRi}{M}$$

Where: *QoL&L* = Content Validity Ratio of acceptable items according to Lawshe's criterion.
M = Total acceptable items of the test.

It is to determine the content validity index (CVI) proposed by Lawshe as a simple average of the items that have been acceptable.

Finally, the CVI according to Lawshe is 0.91, which indicates that the questionnaire has a high level of validity because it is very close to the value of 1, and that the research instrument validated by the experts is considered valid for its application.

Table 1. Semi-structured interview about medicinal plants

CATEG.	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	TOTAL
MB	3	3	3	3	3	3	2	3	3	3	3	3	3	3	
B	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CVR	1	1	1	1	1	1	0.3	1	1	1	1	1	1	1	0.96

Source: Expert Validation; P1, P2, ... P14 Mean Questions

IVC total	0.96

Source: Expert Validation, CVR (Content Validity Ratio)

Finally, the content validity index (CVI) according to Lawshe is 0.96, which indicates that the semistructure interview on medicinal plants has a high level of validity because it is very close to 1, and because it has clear and precise questions.

Instrument reliability

Reliability refers to the accuracy with which it measures what is intended to be measured. That is to say, it is equivalent to stability and predictability, the term mentioned is focused on the degree of homogeneity of the items of the instrument in relation to the characteristics that it intends to measure. There are several types of reliability, including Cronbach's Alpha (Teresen & Ordaz, 2014).

The formula for obtaining Cronbach's Alpha is as follows:

$$\alpha = \frac{k}{k-1}\left[1 - \frac{\sum_{i=1}^{k} s_i^2}{s_t^2}\right]$$

Where:

S_i^2 = the variance of each item.

S_t^2 = the variance of the total rows.

k = Number of items in the questionnaire

Table 2. Cronbach's Alpha Rating Scale

Cronbach's Alpha Value	Appreciation
[0.95 to + >	Very High or Excellent
[0.90 – 0.95>	High
[0.85 – 0.90>	Very good
[0.80 – 0.85>	Good
[0.75 – 0.80>	Very Respectable
[0.70 – 0.75>	Respectable
[0.65 – 0.70>	Minimally acceptable
[0.40 – 0.65>	Moderate
[0.00 – 0.40>	Unacceptable

Source: De Vellis (1991).

Table 3. Total item reliability statistics

	Cronbach's alpha	Cronbach's alpha based on the typified elements	N of elements
Total Item	,889	,886	16

Source: Interview applied to people from the Awajún Community, on 20/01/2019

It is observed that Cronbach's alpha coefficient has a value of .889, considered a very good level of reliability; therefore, it is viable for application in the research process.

RESULT

The results are obtained from the interviews with the inhabitants of different areas of the study and the following are detailed:

Table 3. Do you know any plant that cures a disease?

Categories	Frequency	Percentage	Valid percentage	Cumulative percentage
Yes	48	100.0	100.0	100.0
No	00	00-00	100.0	100.0

Source: Survey applied to residents of the places visited

Table 3 shows the results regarding the question, whether or not you know of any plant that cures a disease. The responses of 48 local people indicate that 100% of these inhabitants do know of a healing plant.

Table 4. How many varieties are known in plants?

Categories	Frequency	Percentage	Valid percentage	Cumulative percentage
Various	27	56,3	56,3	56,3
varieties	21	43,8	43,8	100,0
A single variety	48	100,0	100,0	
Total				

Source: Survey applied to residents of the places visited

Table 4 has asked whether the inhabitants of the places visited know the names of plants that cure diseases. When asked this question, of 48 people interviewed, 56% know of several varieties of healing plants, while 44% know only one variety of healing plant.

Table 5. What are their differences from plants?

Categories	Frequency	Percentage	Valid percentage	Cumulative percentage
Bush	8	16,7	16,7	72,9
Grass	24	50,0	50,0	50,0
Tree	13	27,1	27,1	100,0
Liana	3	6,3	6,3	56,3
Total	48	100,0	100,0	

Source: Survey applied to residents of the places visited

In the interpretation of Table 5. The results indicate that 17% of people know the healing plants in the form of shrubs, 50% know the healing plants in the form of grass, 6% know the healing plant as liana and the remaining 27% know in the form of a tree.

Table 6. What are the characteristics of the leaves?

Categories	Frequency	Percentage	Valid percentage	Cumulative percentage
Variety of features	39	81,3	81,3	81,3
You don't know the features	9	18,8	18,8	100,0
Total	48	100,0	100,0	

Source: Survey applied to residents of the places visited

Table 6 shows the results regarding the characteristics of the leaves of the healing plants. Thus, of the 100% of people interviewed, 81% know medicinal plants with a variety of characteristics, while 19% do not know the characteristics of the leaves of medicinal plants.

Table 7. What are its characteristics of the cortex?

Categories	Frequency	Percentage	Valid percentage	Cumulative percentage
Variety of features	35	72,9	72,9	72,9
They have no features	13	27,1	27,1	100,0
Total	48	100,0	100,0	

Source: Survey applied to residents of the places visited

Table 7 shows the results of the interview regarding the characteristics of the bark of the healing plants, so that of the 100% of people interviewed, 73% know healing plants of various characteristics and 27% do not know the characteristics of the bark of the healing plants.

Table 8. What months do plants bear fruit?

Categories	Frequency	Percentage	Valid percentage	Cumulative percentage
Several months	35	72,9	72,9	72,9
One month	13	27,1	27,1	100,0
Total	48	100,0	100,0	

Source: Survey applied to residents of the places visited

Table 8 shows the results regarding the question about the time in which a healing plant produces its fruit. Thus, according to the opinions of the local people where the interview was conducted, for 79% the healing plant produces its fruit in several months, while for 21%, the healing plant produces its fruit in a month.

Table 9. What substances do the plant have?

Categories	Frequency	Percentage	Valid percentage	Cumulative percentage
Latex	18	37,5	37,9	37,5
Resin	8	16,7	16,7	54,2
Sap	22	45,8	45,8	100,0
Total	48	100,0	100,0	

Source: Survey applied to residents of the places visited

Table 9 shows the results of the interview conducted with the locals of the visited area regarding the area where the healing plants exist, in terms of the form of medicine they produce. In this sense, 38% of interviewees know a latex-type medicine from the plant, 17% know it as resin and the remaining 56% know it as sap.

Table 10. What diseases does it cure?

Categories	Frequency	Percentage	Valid percentage	Cumulative percentage
Various diseases	21	43,8	43,8	43,8
A single disease	27	56,3	56,3	100
Total	48	100,0	100,0	

Source: Survey applied to residents of the places visited

Table 10 shows the results of the interview with the locals regarding the diseases that medicinal plants cure. These results indicate that 44% indicate that medicinal plants cure several diseases, while 56% maintain that medicinal plants they know cure a single disease.

Table 11. What part of the plant is used?

Categories	Frequency	Percentage	Valid percentage	Cumulative percentage
Whole	2	4,2	4,2	4,2
Root	5	10,4	10,4	14,6
Stem	13	27,1	27,1	41,7
Leaves	22	45,8	45,8	87,5
Flower	2	4,2	4,2	91,7
Fruit	4	8,3	8,3	100,0
Total	48	100,0	100,0	

Source: Survey applied to residents of the places visited

Table 11 with the question What part of the plant is used? In the use for healing of the people interviewed, they indicate that 4% usually use the whole plant, 10% use the root, 27% use the stem, 46% use the leaves, 4% use the flower and the remaining 8% the fruit.

Table 12. How is it prepared?

Categories	Frequency	Percentage	Valid percentage	Cumulative percentage
Cooked	18	37,5	37,5	37,5
Crushed	25	52,1	52,1	89,6
No prior preparation	3	6,3	6,3	95,8
Peel bark and wash	1	2,1	2,1	97,9
Boiled	1	2,1	2,1	100,0
Total	48	100,0	100,0	

Source: Survey applied to residents of the places visited

Regarding the preparation of the medicinal plant, the results in table 12 indicate that 38% of people use the cooked plant, 52% use it crushed, for 6% the plant does not need prior preparation and use it directly, 2% peel the bark and wash it before using it, and finally, 2% of people use the plant after boiling it.

Table 13. How is it administered to the patient?

Categories	Frequency	Percentage	Valid percentage	Cumulative percentage
Drink	45	93,8	93,8	93,8
Food	1	2,1	2,1	95,8
External use	2	4,2	4,2	100
Total	48	100,0	100,0	

Source: Survey applied to residents of the places visited

Table 13 shows the results regarding how medicinal plants are administered to patients. 94% of the people interviewed use the plant as a drink, 2% use it as food and the remaining 4% use it as an external use.

Board. 14. How long does the treatment last?

Categories	Frequency	Percentage	Valid percentage	Cumulative percentage
Only once	16	33,3	33,3	33,3
One week	26	54,2	54,2	87,5
Until it heals	5	10,4	10,4	97,9
1 to 3 weeks	1	2,1	2,1	100,0
Total	48	100,0	100,0	

Source: Survey applied to residents of the places visited

In Table 14, 33% of the plant heals only once, for 54% the plant heals in one week, 10% of the plant must be used until the patient is completely cured, and finally, for the remaining 2% the cure lasts from one to three weeks.

Table 15. In which areas can we find this plant?

Categories	Frequency	Percentage	Valid percentage	Cumulative percentage
In ditches	4	8,3	8,3	8,3
In ditches	11	22,9	22,9	31,3
In the hills	14	29,2	29,2	60,4
In the orchards	9	18,8	18,8	79,2
On the farms	10	20,8	20,8	100,0
Total	48	100,0	100,0	

Source: Survey applied to residents of the places visited

The results of the interview in Table 15 reveal that 6% of the medicinal plants are found in ditches, 23% are found in ditches, 29% maintain that they are in the hills, 21% are in the farms.

In the statistical application, the SPSS Statistics software was used, **the weighted average** is estimated at a maximum of 3.60 and a minimum of 1.00, which corresponds to the question "What part of the plant is used?" **The standard deviation** has a value greater than 1.320 which mentions type of plants and the minimum value is 0.00 corresponding to the question do you know any plant that cures any disease? This means that all the interviewees know the plants that cure diseases. **The coefficient of variability** has a value greater than 59.78% that mentions type of plants and the lowest value is 0.00% that corresponds to the question do you know any plant that cures any disease?, the percentage variation is due to the higher data of question 3 type of plants because it is less than 7% is considered accurate, and from question 2 that mentions the name of the plant to item 14 that mentions the predominant life zone of the plant have values between 25.78 and 59.18%, and because they are greater than 20% it is considered within an imprecise estimate and used only for descriptive purposes.

DISCUSSIONS

DATEM MEDICINAL PLANT

Banisteriopsis caapi is a large medicinal plant with long branches whose leaves are round, green and pointed. Its flowering occurs between the months of March and August. However, Forero (2003) mentions the utilities of the most common medicinal plants in the Amazonian territory that have a mutual relationship for the use of the species (*Pagamea macrophylla*) is used as a powerful narcotic, they use it in divination ceremonies, energy rituals, they take it when they want to see visions, diagnosis of diseases.

Medicinal uses

It is known for its psychedelic effects because which depressive patients, addicts, etc., have overcome their illnesses. However, Forero (2003) explains that the species Brugmansia aurea from the Sibundoy valley contains scopolamine with psychotropic potential called the munchiro drunk (Datura candida) that produces narcosis and hallucinations.

MATICO MEDICINAL PLANT

It is a perennial shrub 6 -7 m tall with woody, gnarled, branched green or pale grey stem, pointed light green leaves with a pointed apex, 12 - 20 cm long and 5 - 8 cm wide. Seidemann (2005), with the observations that are carried out, has the same similarities with the only difference that there are few tree species in the place that are in danger of extinction.

Medicinal uses

Traditional medicine attributes varied properties to it. The decocted leaves are used as a healing agent in the treatment of hemorrhage, antiseptic washes on wounds and to evacuate gallstones, cures diseases of the respiratory tract (anti-inflammatory and expectorant), in gastrointestinal ailments such as acute or chronic diarrhea. (Seidemann, 2005). However, according to the surveys carried out, they confirm that they are used to cure internal diseases such as vaginal bleeding and elimination, formation of kidney stones in both women and men.

MEDICINAL PLANT BLOOD GRADE

The genus Croton is made up of shrubs or trees medium to 25 m; monoecious; with reddish-yellow sap; whole, toothed leaves. It is a cosmopolitan genre; in Tropical and Subtropical America, some 400 species have been identified, which are poisonous and others have medical application, Langenheim. J. (2003). That in places visited it is confirmed with the same characteristics mentioned with the indicated authors because it is a medicinal plant well known worldwide for its different medicinal components.

Medicinal uses

It is a tree with yellow-reddish sap used as a healing agent and for stomach and liver pain. Sweating latex has applications in folk medicine for the treatment of skin wounds and ulcers. Grade blood is a very popular medicine in Peru, which can be found in markets. So is Langemheim. J. (2003) cites in folk medicine, grade blood is used externally as a topical medication to enhance wound healing and to stop bleeding. It is used internally for chest pains, postpartum bleeding.

ACHOTE MEDICINAL PLANT

It is a perennial shrub 2 to 5 m tall, with a low, spreading crown; in each capsule there are seeds in variable (10-50, in relation to capsular size). The seed is compressed, 5 mm long, with an integument covered with an intense reddish viscous. However, in Peru it is framed within more than 4400 species of uses known to local populations, of which a large percentage occurs in the Andean region (Brack, 1999).

Medicinal uses

The surface of its seed is covered with resinous and oily that contains a pigment, known as annatto, formed mainly by bixin and other apocarotenoids. This pigment is used as an aphrodisiac and food coloring. Annatto is a medicinal plant for prostatitis, headache, throat and urine infection. The maximum intake limit is 2.5 mg/kg body weight for *annatto*, and 0.065 mg/kg body weight for *bixin*. In higher doses, *annatto* can cause allergies and eczema. (Lourido *et al.*, 2010).

MEDICINAL PLANT GUABA

The Inga feuilleei species inside which is the edible fruit, like a white cotton soaked in nectar, which covers a black seed or "seed". Elizagaray and Castro (2013) carry out studies on medicinal plants, which have an important contribution to the health system of local communities.

Medicinal uses

Guava has a low caloric value, scarce with a contribution of carbohydrates, proteins and fats. Another benefit is to prevent clots from forming in the arteries. The seeds and leaves are used medicinally as an antidiarrheal and antirheumatic. The same as the author Collazos *et al*., (1995). It has an impact that some indigenous communities in the Amazon, in addition to consuming the fruit as food, use the seeds and leaves for medicinal purposes: antidiarrheal and antirheumatic.

MORINGA MEDICINAL PLANT

It is a deciduous tree. It grows rapidly, about 3 m. in its first year it can reach 5 m. in ideal conditions; adult reaches 10 or 12 m. of maximum height. It has brittle hanging branches, with suberosal bark.

Medicinal uses

For treatment of diabetes, hepatitis, hypertension, bronchitis, asthma, cough, aging, cancer, arthritis, kidney and liver problems, tuberculosis, eye and skin problems, anemia, menopause, epilepsy and heart disease. Likewise, Porcar (2013) mentions that more than a third of the content of the seeds is high-quality oil, rich in unsaturated fatty acids.

PAICO MEDICINAL PLANT

It is an aromatic perennial plant with a short life, erect and very branched, it grows up to 1 m. in height, it has a strong characteristic smell with branches development, glandulous, enveloping that is easily detached; horizontal or vertical seed, about 0.7 mm. in diameter, with an obtuse, black, shiny and smooth margin. However, (Benjamin, 2008), specifies that roots are multicellular organs with the following important functions: – plant anchoring – water and mineral absorption – food storage (e.g., starch). .

Medicinal uses

It is used to expel intestinal parasites from other animals. Internally, the infusion of the leaves is used against rheumatism, sinusitis, chronic cold, cough, bronchitis, fever, inflammation of the tonsils, sciatica and parasitic diseases. However , Espinosa and Sarukhán (1997) consider it to be antihelminic, especially effective against ascaris and hookworm.

PASSION FRUIT MEDICINAL PLANT

It is a climbing plant, its edible fruit, yellow or purple, is passion fruit. In relation to Castro and Paredes (2010), they point out that passion fruit is a climbing, vigorous, woody, perennial plant, with green, ribbed and glabrous stems, axillary tendrils that curl in a spiral shape and are longer than the leaves.

Medicinal uses

It helps fight insomnia y.es well recommended for bronchial or intestinal spasms of nervous origin, as well as for menstrual cramps. Likewise, Castro and Paredes (2010) mention the medicinal use of passion fruit, it is based on its soothing properties, its leaves are used to combat inflammation and fevers. It fights diabetes, as passion fruit flour controls blood sugar levels.

MEDICINAL PLANT NONI

Noni is a shrubby plant of the Rubiaceae family that can grow from 5 to 7 meters, which bears fruit throughout the year, Wang, MY, Su C. (2001). The Noni is a small flower or tree, covered with bright green bark; elliptical leaves, large, simple, shiny, with well-marked veins. It blooms throughout the year, producing multiple fruits.

Medicinal uses

It reduces high blood pressure, is anti-inflammatory, is antibacterial, relieves pain. Noni juice contains a substance called proxeronine, which is converted into xeronine, a chemical compound that is involved in different metabolic reactions in the body; It is a cell regenerator, which accelerates the healing of diseases such as diabetes, cancer, arthritis, asthma, digestive problems, among others. (Communal information).

MEDICINAL PLANT SOURSOP

They are medium-sized trees approximately between 6 to 10 m. high and branched from the base, it gives off a bad smell when crushed. The branches are reddish and hairless, cylindrical, wrinkled, rough and with numerous lenticels. The crown grows spreading, with compact foliage.

Medicinal uses

They are anticancer drugs that have a high concentration of acetogenins in the fruit. The pulp is made up of water; it also provides mineral salts, potassium, phosphorus, iron, calcium, lipids, high carbohydrate content; it is also rich in vitamin C and provitamin A, as well as vitamin B. however, Díaz (2004) specifies that there are several studies on anonacin, the compound in soursop that presumably has anticancer effects.

UNIDENTIFIED PLANT

They are stem plants with the presence of thorns, leaves very similar to the watermelon species toothed, fragile and on each petiole it presents lobed-shaped fruits with the presence of larger thorns that allow as a defense against aggressors they are generally habitat plants that are exposed to the environment to produce their normal development of their biological cycle.

Medicinal uses

Usually healers use it for five body years of patients who have a high fever. They boil it together with other plants and when the water is warm they use it in the treatment.

UNIDENTIFIED PLANT

It is a creeping and climbing plant , its origin is unknown, however the locals mention it is of origin of the area that has always existed since those past centuries; they have pigmented leaves of green coloration, on the edges of the leaves it presents in an enclosed and lanceolate shape with the presence of pimples on the petioles and on the stem, The union of the petioles and the stem resemble its flowers and the fruit accompanied by a serpentine-shaped row, generally the leaves are larger, the most characteristic, it has ovoid-shaped fruits and in the vicinity of the epicarp it is appreciated by the composition of pimples.

Medicinal uses

The villagers use it for feverish treatments accompanied by other plants.

CONCLUSIONS

As conclusions in the supply of medicinal plants to the sick; 94% of the people interviewed use the plant as a drink, 2% as food and the remaining 4% use it as an external use. The villagers use it for feverish treatments accompanied by other plants. In the course of the work, it has not been possible to identify two species of great importance, one for fever cures and the other for the treatment of febrile accompanied by other species.

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