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Ethnobotanical Survey of Plants from the Caatinga with Possible Therapeutic Uses

Márcia Valéria Chagas Nogueira, Sandra Aparecida Bezerra de Lima Castro, Andréa Monteiro de Amorim¹, Robinson Magalhães Maia¹ and Luis Cesar Maffei Sartini Paulillo*

Faculdade de Tecnologia e Ciências – FTC, Mestrado Profissional em Bioenergia. Av. LuísViannaFilho, 8812, Pituçu, Salvador, CEP 41.7411-490, BA- Brasil

**Corresponding author email id:*

ABSTRACT

Keywords

Caatinga, Riacho das Vacas, medicinal plants, ethnobotanical survey.

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The ethnobotanical survey of Riacho das Vacas region aimed to analyze the potential of flora in the region, seeking to understand the relation of the use of plants by the native population with the medicinal use. The study aimed to characterize the cultural aspects, identify the main categories of use of native plants from the caatinga, regarding the therapeutic applications. Semi-structured and structured interviews were carried out seeking information about the flora and the way the community sorts the plants with their respective uses. During this period were interviewed 47 families of which were obtained information like: popular names, occurrence, the used, preparation, dosage, indications and prevalent notions of toxicities.

Introduction

The Riacho das vacas community is closely linked to the uses of the plants for different purposes, such as mystical rituals, food, wood suppliers and especially for medicinal use because they are, in most cases, the only resource available to treat diseases in the community. The importance of ethnobotanical study in traditional rural populations, as recommended Casali (2000) and Prance (1991), due to the fact that they can recover the inheritance of knowledge that has been accumulated by the community and passed on to their descendants, but it is lost over time. According to the authors, the cultural revival

and recording of traditional knowledge ensure their availability for future generations.

From the point of view of Casali (2000), more than two thirds of the species used are still collected directly from nature. Rescuing the local culture and protect the genetic patrimony of flora it is of great importance for the traditional communities, but it's critical awareness of biological and cultural wealth they have and the role it is to care and health maintenance.

The culture of a people that is based on human action is not limited in time, because: "Everyday life is presented as reality

interpreted by men and subjectively endowed with sense to them, as forming a coherent whole" (Berger & Luckmann, 2004). Thus, it is evident that the human being is the result of their work and their social relations may be inserted in a group that consider their values and become aware of the importance of crop species and transmission of values that must be preserved. Santos (1995), points out that every society develops its ways of solving problems and controlling diseases, as well as the perceptions of symptoms and the ways in which each disease is treated.

It is observed so that this practice is culturally passed from elderly people to younger, through observation and oral transmission and this requires an intense contact between the two (Coelho, 2000). Thus, it may be said that knowledge is accumulated as the years pass and elderly people have more knowledge than the younger ones.

As explained Diegues (2000), the women are historically holders of knowledge related to nature, as of course are more participating because of their more direct relationship with the environment. It can be said that the ethnobotanical inheritance of a society is dependent on vast forest area from which you can give richness of knowledge and possible therapeutic applications (Elizabetsky, 1987).

Material and Methods

Study Area

The study was conducted at the Riacho das Vacas community, located in the municipality of Caetité in the southwestern region of Bahia, in an area of approximately 560 hectares. It is the caatinga ecosystem with approximately 734,478 square

kilometer area, according to the Ministry of the Environment-MMA (2008), characterized by low precipitation of rain, high temperatures, high solar radiation and low relative humidity.

The community is located 5 kilometers from the Nuclear Industry of Brazil (INB), 55 kilometers from Caetité and has 207 inhabitants, 88 men, 74 women and 45 children in a total of 47 families.

The ethnobotanical survey was conducted in upland areas, such as swiddens, gardens, farmyard, dense forest, also covering a conservation area of INB, occupying in total an area of approximately 50 hectares.

The community of Riacho das Vacas and the conservation area of INB along with the surrounding regions are practically in the area of dense arboreal caatinga and open arboreal (anthropic and crops for subsistence areas).

The highest temperatures occur during the month of October, with average temperatures of 22.6 ° C and minimum of 17.0 ° C; the lowest temperatures are observed in July with an average temperature of 19.1 ° C and minimum of 13.7 ° C.

According to climate typology developed by Koppen (1938), the climate is classified as Aw (f) - transition to Bsh (h), this is, transition from a hot and humid climate with dry season in winter, for the hot semiarid climate.

The precipitation in Caetité region is on average 600-800 mm of rain per year, with an average annual rainfall of 797.1 mm / year. Rainfall is concentrated in the summer and late spring, particularly in November, December, January and February. In this

region the period of the winter is the one with the largest reduction in rainfall.

Collection and Analysis of Information

At first, a visit was undertaken in the community in order to know their cultural habits by monitoring with the social worker in the area.

For the analysis of flora was carried out botanical classification of the main species with therapeutic applications, as well as ethnobotanical survey undertaken between June and July 2012. There were semi-structured interviews, objective information on the plants, such as: popular names, occurrence, used part, method of preparation, indications and dosages, as well as the prevalent diseases, plant toxicity notions, main risk factors to disease, among others.

And then were made herbarium for subsequent identification by botanical herbarium of UEFS- State University of Feira de Santana and EPAMIG- Agricultural Company of Minas Gerais., Main risk factors to disease, among others.

Results and Discussion

It was noted that 70% of those responsible for family support had farming as one way to survive by cultivating manioc, palm, banana, vegetables, sweet potatoes and typical fruits of the region. The main economic activity until mid-2011 the region continued to be family agriculture (cotton, beans, vegetables and manioc), because of the drought today families survive basically from government social benefits.

Table.1 Classification and use of medicinal plants used by more Riacho das Vacas community of Caetit - BA.

Common Name	ScientificName	O.U. ¹	F.P. ₂	T.P. ₃	Purpose	Preparation
�gua da col�nia ou (catinga-de-mulata)	<i>Tanacetum vulgare</i> L.	Fo	C	I	Calming and dizziness	Making tea and take it daily.
Alcachofra	<i>Cynara scolymus</i> L.	Fo	C	I	For intestinal problems and to reduce the menstrual cycle, headaches and dizziness.	Rub your hand and smell leaves. Making tea and take it daily.
Alecrim	<i>Rosmarinus officinalis</i> L.	Fo	C	I	Cough, cardiovascular and eye problems.	The roasted and ground leaves mixed with nutmeg. The powder used for inhalation in cases of sinusitis, influenza and nasal congestion.

Alfavaca	<i>Ocimum gratissimum</i> L.	Fo	C	I	Bronchitis and flu	Making tea and take it 3 times a day.
Anador	<i>Ecbolium pectorale</i>	Fo	C	I	Headache and fever	Making tea and taken during the period you have fever and pain.
Arruda	<i>Ruta graveolens</i> L.	Fo	C	I	Swelling in the body, gynecological problems and menstrual cramps.	Making tea and take it 3 times a day and also use this infusion to sitz bath.
Aspirina	<i>Althernanthera brasiliiana</i> (L.) O. Kientize	Fo	C	I	Headache, flu and fever	Making tea and taken during the period you have fever and pain.
Bambuzinho	<i>Bambusa vulgaris</i>	C	C	I	Gastritis, renal disorders, urinary tract infections.	Making tea and take it 3 times a day.
Barbatimão	<i>Stryphnodendron barbatiman</i> M.	Fo	T	D	Cicatrisant	Do the tincture and wash the wounds
Boldo	<i>Vernonia candensata</i>	Fo	C	I	Indigestion	Kneading the leaves and leave infusion for two hours. Drink itslowly all day
Capim santo	<i>Cymbopogon citratus</i> (D.C.) Stapf.	Fo	C	I	Calming, abdominal pain and fever	Making tea and take it daily.
Erva cidreira	<i>Melissa officinalis</i> L.	Fo	C	I	Hypertension	Making tea and take it daily.
Erva doce	<i>Pimpinella anisum</i>	Fo	C	I	Flatulenceand abdominal pain	Making tea and take it daily.
Folha santa	<i>Aloysia gratissima</i>	Fo	C	O	Earaches	Place the leaves in a pan and leave on low heat to release a liquid. Collecting the liquid dripping it in the ear three times a day.
Hortelã graúda ou Hortelã pimenta	<i>Coleus amboinicus</i>	Fo	C	I	Intestinal cramps	Making tea and take it 3 times a day.
Hortelã miúda	<i>Mentha x villosa</i> L.	Fo	C	I	Cold and flu, indigestion and fever.	Making tea and take it daily.

Losna de homem	<i>Artemisia absinthium</i> L.	Fo	C	I	Indigestion	You can make tea or put in cachaça, (Brazilian alcoholic beverage) and drink slowly.
Picão ou carrapicho de agulha	<i>Bidens pilosa</i> L.	Fo	B	I	Sitz bath for problems of urinary tract infection and newborns with jaundice.	Boil the leaves to take sitz bath or body wash.
Poejo	<i>Mentha pulegium</i> L.	Fo	C	I	Flu and children being born teeth	Making tea and take it several times a day.
Quitoco	<i>Pluche aquitoc</i> D.C.	Fo	C	I	Fluandcolds	Making tea and take it daily.
Sabugueiro	<i>Sambucus australis</i> Cham. E Schit.	Fo	C	I	Flu and fever, varicella (chickenpox)	Making tea for drinking or bathing
Sete dores ou Falso - Boldo	<i>Coleus barbatus</i> Benth.	Fo	c	I	Indigestion	Knead the leaves and put in a glass of water. Drink slowly until the symptoms go away.

The studies conducted during the development of this study confirm the importance of environmental conservation and customs of the Riacho das vacas community. It tried to give answers to some questions about the conservation of flora and social inclusion, valuing the ethnobotanical aspects regarding the preservation of inherited knowledge and transmitted for generations.

It was considered that this study is very important in the search of popular knowledge about medicinal plants for therapeutic purposes that may attract and benefit a greater number of people, offering new parallel strategy to traditional medicine, especially for the new generations also will know and make use of the knowledge already used. As stated by Campos (1995) in the man-nature relationships, knowledge and practices reproduce at different levels of

experience and all human society brings accumulation of information about the environment that surrounds it. It is considered that the incentives and cultivated values can be prioritized in the future to add new actions and knowledge to new projects that value popular practices information to be exploited with due respect to the local culture.

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References

Berger PL, Luckmann T 2004– A construção social da realidade:

- tratado da sociologia do conhecimento. Lisboa: Dinalivro.
- Campos MD 1995. Homem, saber e natureza. Campinas.
- Casali VWD, Silva F 2000. Plantas Medicinais e Aromáticas: Pós-colheita e Óleos Essenciais. VIÇOSA.
- Coelho BMF 2000. Estudos para a conservação de recursos genéticos de plantas medicinais do entorno do Parque Estadual da Serra do Brigadeiro na Zona da Mata de Minas Gerais: uma abordagem etnobotânica.
- Diegues AC 2000. Etnoconservação: novos rumos para a conservação da natureza. São Paulo: Hucitec.
- Elisabetsky E 1987. Pesquisas em plantas medicinais. *Ciência e Cultura* 39: (697- 702).
- MMA – Ministério do Meio Ambiente. 2008. Mapa de Cobertura Vegetal dos Biomas Brasileiros.
- Mota MGFC 1997 Plantas medicinais utilizadas por raizeiros: uma abordagem no contexto da saúde e doença. Cuiabá.
- Pitman V 1996. Fitoterapia: As plantas medicinais e a saúde. Lisboa: Estampa.
- Prance GT 1991. What is ethnobotany today? *J. Ethnopharmacol.* 32: (209-216).
- Santos MG, Dias AGP, Martins MM 1995. Conhecimento e uso da medicina alternativa entre alunos e professores de primeiro grau. *Revista Saúde Pública*, 29.

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