Chapter 9
Medicinal Plants Used in *Quilombola* Communities in Piranga, State of Minas Gerais, Brazil

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Abstract The purpose of this chapter was to analyse knowledge and use of medicinal plants in two *quilombola* communities, within the Atlantic Rainforest. This data was obtained through semistructured interviews that took place between 2017 and 2019. In Santo Antônio dos Quilombolas, 55 interviewees mentioned 132 species for medicinal use, while in Santo Antônio do Guiné, the 76 interviewees mentioned 142 different species. The botanic families with the greatest number of species in Santo Antônio dos Quilombolas were Asteraceae, Lamiaceae, Fabaceae, Solanaceae, Rosaceae and Rutaceae, while in the case of Santo Antônio do Guiné, they were the Asteraceae, Lamiaceae, Rutaceae, Apiaceae, Poaceae and Rosaceae. The data shows that the *quilombola* communities in Piranga make great use of a diversity of medicinal plants and that many other studies are necessary for the establishment of the efficiency of these plants, which opens new possibilities of pharmacological studies.

Keywords Atlantic Rainforest · Ethnobotany · Medicinal plants · Quilombola

Among the many traditional communities that occur in the Atlantic Rainforest, *quilombola* communities, of African inspiration, appear as a source of resistance to the slavery-based system of the time. This resistance was not only through slaves escaping en masse but also through the organisation of family units that sought a system of free and autonomous production, based on cooperation, and representing a new style of life and political organisation (Carvalho and Lima 2013).

The quilombos established in Brazil were copies of those in Africa, whose structure and organisation started in the *Mbunda* tradition (from Angola), whose main

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goal was opposition to a slavery-based structure, and for the implementation of a political composition where all the oppressed could be found (Leite 2000). Many *quilombos* were started through donation of land by the *senhores de engenho* (slaveowners), as a payment for services provided to the State, purchase of land and the mere stay on the land that they occupied and cultivated inside large estates (Rothenburg 2008).

Throughout the domain of the Atlantic Rainforest, there are some 370 *quilombola* communities. Most of these communities sought shelter in Brazil's forest frontiers, far from urban centres, thus becoming established as rural Black communities who normally established lifestyles integrated with natural systems, their territories and also their ancestrality, traditions and cultural practices (da Silva 2013). According to Almeida (2002), *quilombola* identity is connected to its territory, and it is in this space that the communities uphold a direct connection with ancestrality, culture and traditions, as well as the common use of the land, with the family unit as an essential element, as political and ethnic affirmation.

The *quilombola* communities established within the domain of the Atlantic Rainforest have, in the backyards of their own homes, a social and cultural space where the families keep a wide variety of plants, using such plants in a sustainable way to make sure of their preservation. These backyards are considered agroforest systems that are practices of land usage where woody and herbaceous species are integrated with agricultural cultivations and also the rearing of small animals, in a sequential and integrated manner (Depommier 2003). According to Machado and Santilli (2008), forestry systems, such as yards, family farms and secondary agriculture, are areas that have preserved the agricultural and crop biodiversity throughout the tropical strips of the world, as well as being an important space for maintenance and exchange of traditional knowledge.

Even though there are many *quilombola* communities along the Atlantic Rainforest, few have had investigation of their cure practices (Mota and Dias 2012; Ferreira et al. 2014; Rogério 2014; de Siqueira 2014; Zank et al. 2016; dos Lisboa et al. 2017; Machado and Dória 2017). A range of authors mention that this part of the Brazilian population has kept up its traditions and knowledge through oral communication (Ki-Zerbo 2010; Schiffler and Nascimento 2012; de Almeida and Miranda 2015). According to de Almeida and Miranda (2015), the older members of the community use their memory and oral communication in conversation circles or in their daily activities to teach the younger people about the ways of seeing and living the world, thus seeking to preserve their local customs.

Studies carried out about the use of medicinal plants within the domain of the Atlantic Rainforest are concentrated in coastal areas and/or areas close to big cities, and this has left some gaps in the knowledge of the use of such plants in extensive countryside areas, within the Atlantic Rainforest (Liporacci et al. 2017). In this scenario, it is essential that there be the execution of ethnobotany research in *quilombola* communities in countryside regions, as they can contain important knowledge about medicinal plants.

The communities focused on this work, namely, Santo Antônio dos Quilombolas and Santo Antônio do Guiné, both lie within the Municipality of Piranga, in the

countryside of the State of Minas Gerais. This region is part of the Atlantic Rainforest, and the prevailing phytophysiognomy being the semideciduous seasonal forest (Veloso et al. 1991). The municipality has a total area of 658,812 km^2, and it stands some 166 km (103 miles) from the state capital, Belo Horizonte (IBGE 2018).

The State of Minas Gerais was the Brazilian state with the largest enslaved population during the colonial period. It was originally occupied with the discovery of gold and diamonds in the Espinhaço mountain range,[1] leading to a gold rush of millions of people who relocated to Minas to work with mining, bringing with them an enormous number of slaves to carry out heavy manual labour in the mines (CEDEFES 2008).

The region of the present Municipality of Piranga was one of the first to be occupied in Minas Gerais for the exploitation of gold. According to Venâncio (1997), the growth of the city was so significant that, in 1724, the settlement was raised to the status of *freguesia* (parish), and then the discovery of new mineral lands allowed this location to keep 1193 African and *crioulo* slaves that same year.

With the demise of mining activities, a process that started at the beginning of the nineteenth century, the region around Piranga started to be a point of subsistence mercantile activity, which is the production of basic and staple foods for self-consumption and also for the internal market, inside and outside the Province (now State), and the slaveowner farmers were regularly inserted in these relationships (de Oliveira 2006; Silva 2012). A study conducted by do Silva (2014) shows that, even after the economic change that swept across Piranga, this region still had a significant number of slaves. Indeed, in 1831 the city had a population of 12,393 people, of which 4088 people (32.99%) were enslaved.

Santo Antônio dos Quilombolas was the first quilombola community to be certified by the Palmares Cultural Foundation as being a remnant of a quilombo in the Municipality of Piranga. According to the local residents, this community was set up by freed slaves in Taquaruçu Farm (probably the oldest in the region) that formerly belonged to Francisco Antônio de Souza. This story can be confirmed by the inventory of Francisco Antônio de Souza, dated 1883, belonging to the current owner of the Taquaruçú Farm. This inventory sets out the donation of land to the slaves, José Philomena and Antônio, but throughout the document another eight names are mentioned: Raymundo, Antônio, Fermino, Manoel, Ceriaca, Maria, Mara Crioula and Manoel, of African origin.

The community has 96 houses built in stone, as can be seen in the photograph below, organised mainly around the Catholic church present in the community. The church represents a large part of the sociability of the community, as this is where the religious festivities take place, from putting up the stalls for selling food through to the holding of raffles to raise funds for the maintenance of the churches. The community also has a municipal school, which offers basic education only, and a

[1] A large mountain range that cuts its way through the States of Minas Gerais and Bahia.

health centre which has a doctor every morning on weekdays and a community health agent.

Some of the residents, mainly the women, work harvesting coffee, in the neighbouring city of Mariana, between May and September. Many of the men in the community work on rural properties, or in the building trade, also in neighbouring municipalities such as Diogo Vasconcelos and Mariana, spending the whole week outside the community and only returning at weekends.

Santo Antônio do Guiné was the second *quilombola* community to have received certification granted by the Palmares Cultural Foundation, on 5 May 2009. *Território de Guiné*, as it is known by the local residents, comprises a host of small settlements: Santo Antônio do Guiné (16 houses) as seen in the following photograph, Coelho (2 houses), Catanho (33 houses), Chácara (2 houses), Baú (7 houses), Acabasacu (6 houses), Pedreira (12 houses), Palmeiras (7 houses), Passarinheiro (8 houses), Tenda (7 houses) and Congonhas (7 houses), giving a total of 107 houses in the Guiné sector.

According to stories told in Piranga, in 1721 Colonel João Amaro Maciel Parente freed his Guinean African slaves, who then founded the quilombo of Santo Antônio do Guiné. To mark off their land and commemorate freedom, the freed slaves planted a *jequitibá* (*Cariniana brasiliensis*) on the settlement of Palmeiras, where the quilombo of Guiné-Piranga had been founded. The *jequitibá* at Palmares exists to this day and is protected by municipal law.

It is in the hamlet of Santo Antônio do Guiné, as can be seen in the following photograph, where the school is located, as also the health centre and the church, which is used by the whole population of this sector. The municipal school only has primary education, and the health centre offers medical services 3 days a week together with a health agent who belongs to the community.

The church is also the main point of sociability of the quilombo, and this is where the association meetings are held, also being the venue for hosting the community parties. To raise funds and take care of the church, the local residents normally organise raffles a few months in advance.

Most of the residents in Santo Antônio do Guiné work in Piranga or are small rural farmers, mainly producing beans and corn. Eucalyptus plantations are also very common in the hamlets of Catanho for the production of plant-based coal.

For the study of medicinal plants used by the *quilombola* communities at Piranga, semistructured interviews were carried out, accordingly with Viertler (2002), Alexiades (1996) and Albuquerque et al. (2010), during 2017, 2018 and 2019, respectively. The residents' houses were numbered and based on a table of random numbers, and the interviewees were selected according to the number that corresponds to the numbering of the house (Albuquerque et al. 2010).

Interviews were conducted with only one resident of each house selected, the interviewee being the person who self-declared himself or herself as the person in the region with best knowledge of medicinal plants or the person who was nominated as interviewee by the members of the family. On starting the interview, the free and informed consent form was read out to the interviewees (informants), seeking to make sure of free, volunteered and informed participation of the interviewee.

For the interviews themselves, a special form was drawn up, asking about the species of medicinal plants used, their vernacular name, the purpose of their use, the method of preparation and the quantity used, how it is used, the duration of the treatment and the place of collection. After the interviews, the plants mentioned were located and collected by means of guided tours through the spaces as previously established and by common agreement with the interviewee, as in yards, wooded areas, roadsides and so on (Alexiades 1996; Albuquerque et al. 2010). Later these were incorporated into the herbarium of the National Museum.

The taxonomic identification of the botanical materials was made with the use of analytic keys and specific bibliography, as well as consultations with specialists, comparison with exsiccates housed in the herbarium of the National Museum and online herbaria such as the Reflora Virtual Herbarium, the Virtual Herbarium of the Emílio Goeldi Pará State Museum and the Missouri Botanical Garden (MOBOT). The system of classification that has been adopted here was that of the Angiosperm Phylogeny Group (APG IV 2016), with nomenclature updates of plant species and their respective families having been carried out on www.theplantlist.org.br.

To compare the wealth of species between the different *quilombola* communities, there has been an estimate of curves of rarefaction and extrapolation, based on the number of interviews, using the first Hill number, $q = 0$ (Chao et al. 2014). The extrapolations were made based on the presence or absence of species during the interview (Colwell 2013). These estimates were obtained using the "iNEXT" package (Hsieh et al. 2016). The Hill number was estimated as the mean of 100 repetitions of bootstrapping, to estimate confidence intervals of 95% (e.g. Rodrigues et al. 2019). Similarly, we always assume that there is no overlap of confidence intervals of 95% and that the number of species has shown a statistically significant difference, with $p < 0.05$ (Colwell et al. 2013).

In all, 59 residents were interviewed at the community of Santo Antônio dos Quilombolas: 46 women and 13 men. Out of this sample, 93.22% (55) were born in the community, while 6.77% (4) came after they married residents of the quilombo, having hailed either from Mariana or other neighbouring rural communities. In the case of the community of Santo Antônio do Guiné, 76 were the interviewees: 67 women and 9 men. Out of this group, 94.73% (72) were born within the community, with only 6.77% being born elsewhere, such as Piranga (seat of local government) and Ouro Preto.

The higher number of women interviewed in both *quilombola* communities took place due to them being mentioned by other residents in the house as the people with best understanding of medicinal plants. According to Viu et al. (2010), women are responsible for taking care of the home and for curing illnesses that occurred in children, through the use of medicinal plants. This fact can be confirmed by noting that women are also the people who best understand medicinal plants in most of the studies carried out (Vendruscolo and Mentz 2006; Gomes and de Bandeira 2012; da Silva et al. 2012; Ferrão et al. 2014; Ferreira et al. 2014; Ferreira et al. 2016; dos Lisboa et al. 2017).

Women's occupation with domestic tasks and plantation, within the community of Santo Antônio dos Quilombolas, was also observed by Santos (2012), when there

was the development of a study in the aforementioned community about the interface between food and the *quilombola* culture. The author reports that the women in the community are responsible for taking care of children and the plantations in the yard and that they cultivate a wide range of medicinal plants. Cupertino (2012), on carrying out a study on the young people at the communities of Santo Antônio dos Quilombolas and Guiné, also reported on the traditional consumption of medicinal teas by the *quilombola* families.

The ages of the interviewees ranged from 23 to 94 years, in the community of Santo Antônio dos Quilombolas. For female interviewees the youngest was 34 years old and the interviewee of most advanced age was 94, while for the male gender, the youngest was 34 and the most chronologically advantaged was 76. The most common age brackets within the sample were 36–45 years old and 46–55 years old, both corresponding to 25.42% of the interviewees.

In the community of Santo Antônio do Guiné, the age of the interviewees ranged from 23 to 87 years. For the female gender, the youngest was 23 and the most chronologically advantaged was 87, while for males the youngest was 37 and the interviewee of most advanced age was 67. In this case, the most common age bracket among the interviewees was between 46 and 55 years old, which worked out at 30.26% of the interviewees.

The fact that there were very few young interviewees, between 23 and 35 years old, was because this is the age bracket that most leaves the communities to work outside the home, at present. According to Brumer (2013), the exodus of young people, leaving rural areas, is also due to the search for something more modern. The city is considered a place where things happen, somewhere fun and full of opportunity. This migration of young people from rural to urban locations is selective, being more common in the case of women (de Castro 2005).

This reality can best be seen in the work of Cupertino (2012) which was carried out with young people of these same two communities (Santo Antônio dos Quilombolas and Santo Antônio do Guiné), where it was observed that most young people wish to work in areas not related to agricultural production and that many people also want to study at university. The same author draws attention to the fact that immigration is very common in these communities, as 92% of the interviewees have at least one relative living away from the communities.

The occupations of the interviewees in the community of Santo Antônio dos Quilombolas are homemaker (54%), agricultural worker (25%), retired person (15%), rural producer (2%), shopkeeper (2%), school helper (1%) and joiner (1%). Even though most of the women are homemakers, it is important to mention that some of these interviewees have worked 5 months of the year harvesting coffee in rural properties of the region, this being the main job opportunity mentioned at these interviews.

The main occupations seen in the community of Santo Antônio do Guiné are no different from those found in Santo Antônio dos Quilombolas, the most mentioned being homemaker (50%), agricultural worker (33%) and retired person (7%). Other jobs were also mentioned, each with 1%: these were school helper, security guard, health agent, teacher, shopkeeper, artisan and coal merchant. It is also worth

mentioning that these latter occupations are developed in the community itself, except for those of security guard and teacher, these being carried out in central Piranga and in a neighbouring community, respectively.

The main occupations found in the two *quilombola* communities are homemaker, agricultural worker and retired person. These same occupations were the most commonly found in studies carried out at other *quilombola* communities (de Siqueira 2014; de Nunes 2016). The occupational data as found in the two communities studied reinforce the importance of land for the development of subsistence activities on the part of the quilombolas.

Most of the interviewees at the community of Santo Antônio dos Quilombolas (55, 96.4%) said that they used medicinal plants for treating health problems; only 4 respondents said they did not use plants for this purpose. Out of the people who did not use plants, three are young women aged 35 years, who justified this by saying they did not have time to cultivate the plants and that they trust medication prescribed by the doctor at the health service. The other interviewee that did not use plants was a chronologically advantaged man, who lives alone.

Out of the cohort making use of plants, 91.23% learnt how to use and recognise medicinal plants, or 'tea plants', through their mothers. The grandmother was also mentioned by 7.02% of the interviewees, while only one of the interviewees (a man) said that he learnt how to use medicinal plants through his father, a *raizeiro*[2] who had already passed away many years before, in the community. This prevalence of the woman as the transmitter of knowledge about medicinal plants adds weight to the view that they are the people who best understand this class of use for medicinal plants.

My mother made teas from many plants picked in the yard and in the forest, to cure many diseases; everything was treated with plants. When we were children, we didn't even go to the doctor (female interviewee, 52 years old).

This reality is also confirmed in the community of Santo Antônio do Guiné, where most of the interviewees, 75 (98.68%), use medicinal plants for the treatment of health problems. There is just one person, a female resident aged 64, who does not use such teas any more. This lady says that, now her children have got married and moved away from Piranga, she did not keep up the habit of cultivating many of these plants in the vegetable garden for this purpose, with the plants that do exist being used as seasonings.

Out of the group of interviewees who make use of medicinal plants, the large majority (92.10%) learnt how to use such medicinal plants with their mothers, 6.57% with their grandmothers and only one single case (1.31%) interviewed declared learning of use through an uncle. During the interviews with the residents of Santo Antônio do Guiné, the role of the mother as owner and transmitter of this knowledge was also reinforced.

[2]A medicine man who makes medical treatments using roots of plants (Minas Gerais terminology).

My mother knew about many plants that cured many diseases. She cured all her health problems with plants that she would pick from the vegetable garden in the yard (female interviewee, 57 years old).

The recommendation of medicinal plants to other residents in the community is made by most people who participated in the survey at both *quilombola* communities, making recommendations mainly to family, neighbours and friends. This same exchange between family, friends and neighbours is also observed when they are asked about if they seek someone's help when they need to use plants as treatment for some illness. According to Zank et al. (2016), the picking of plants in neighbours' and family members' yards shows the importance of social relations and exchange, in the use of medicinal plants.

The residents aged between 76 and 85, at the community of Santo Antônio dos Quilombolas, are the people who have the best knowledge about medicinal plants, mentioning 14 species on average. A similar result was also found in the community of Santo Antônio do Guiné, where the interviewees in the age bracket between 66 and 75 were those with best knowledge, having mentioned an average of 13 species. Other work projects in ethnobotany and using medicinal plants also found greater knowledge among people aged over 60 (Gomes and de Bandeira 2012; da Silva et al. 2012; Linhares 2015).

There were a lower number of mentions of medicinal species by residents within the age bracket from 23 to 35 years old, in both communities, the mean being seven species within the community of Santo Antônio dos Quilombolas and eight at the community of Santo Antônio do Guiné, which shows that the transmission of knowledge of the usage of these plants has been declining. Amorozo (2002) reports that many factors have helped to bring about this loss of information about plant species with therapeutic value, including the new options for health care and the devaluation of local culture, which mainly affects the younger population, who abandon the traditional practices.

The perception of loss of knowledge of medicinal plants in both communities can be perceived during the interviews, when the people of more advanced age say that the communities use less teas than in the past and that these changes have been brought about by two key factors: younger people no longer have interest in learning about the plants, and medical care is more readily available.

The 55 interviewees at the community of Santo Antônio dos Quilombolas mentioned 132 species of plants for medical use. Out of these, 126 are identified at species level and 5 at genus level only. In the case of Santo Antônio do Guiné, there were 142 species identified with 5 being identified at genus level only.

In both communities, it is possible to observe how the curve of rarefaction stabilises to show that the number of interviews was sufficient to enable awareness of the wealth of medicinal plants as used by the two *quilombola* communities in Piranga (Fig. 9.1). A similar diversity of medicinal species was also found in other communities studied in the Atlantic Rainforest (Ferreira et al. 2014; de Siqueira 2014; Crepaldi and Peixoto 2010).

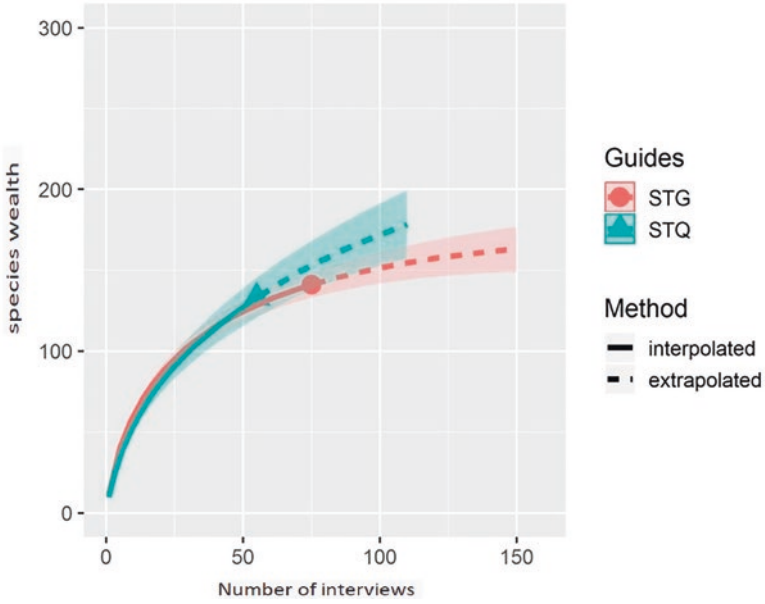

Fig. 9.1 Rarefaction curve (accumulation) of medicinal species cited by interviewees in Santo Antônio dos Quilombolas (*n = 55) and in Santo Antônio Guiné (n = 76), Piranga, Minas Gerais*

The medicinal species used by the community of Santo Antônio dos Quilombolas belong to 129 genera and 52 botanical families, according to Table 9.1. The most representative genera were *Mentha*, *Citrus* and *Solanum* with four species each; *Ocimum* with three species; and *Alpinia*, *Allium*, *Artemisia*, *Baccharis*, *Erythrina*, *Plectranthus* and *Rubus* each with two species. The other 118 genera had only 1 species mentioned, which represented 89% of the total number of species.

The 142 medicinal species used by the community of Santo de Guiné represent 123 genera and 54 families: the genus *Mentha* showed 6 species, *Citrus* 4 species, and then 2 genera showed 3 species each, *Ocimum* and *Artemisia*, and 5 genera with only 2 species apiece: *Allium*, *Baccharis*, *Apium*, *Rosa* and *Piper*. The other 114 genera had only 1 species mentioned, representing 92% of the total.

The prevalence of genera with only one species mentioned in research into the use of medicinal plants has been recorded in most of the academic works published (Amorozo 2002; Pinto et al. 2006; Silva and Proença 2008; Messias et al. 2015; de Nunes 2016; dos Lisboa et al. 2017). The genera that stood out in the two *quilombola* communities are mainly genera that have medicinal species that are widely used by popular medicine, most having been naturalised or cultivated within Brazilian territory (Forzza et al. 2010).

The most representative biological families in the community of Santo Antônio dos Quilombolas were Asteraceae with 21 species (15.90%); Lamiaceae with 19 species (14.39%); Fabaceae with 7 species (5.30%); Solanaceae, Rosaceae and

Table 9.1 Plants cited in interviews in the communities of Santo Antônio dos Quilombolas and Santo Antônio do Guiné, Piranga, Minas Gerais

Family	Vernacular name	Scientific name	Recommended for	Part used	Method of preparation
Acanthaceae	Sapatinho de judeu	*Thunbergia mysorensis* (Wight) T. Anderson	Fever	Leaves/root	Infusion/macerated
Achariaceae	Sapucaia	*Carpotroche brasiliensis* (Raddi) A.Gray	Wounds	Fruit	Cooked in water
Adoxaceae	Sabugueiro	*Sambucus australis* Cham. & Schltdl.	Colds/emagrecimento/catapora/ alergia no corpo/influenza	Flower	Infusion/decoction
Alismataceae	Chapéu de couro	*Echinodorus grandiflorus* (Cham. & Schltdl.) Micheli	Cleanses the blood/body pain	Leaves	Decoction
Amaranthaceae	Santa maria	*Dysphania ambrosioides* (L.) Mosyakin & Clemants	Influenza/worms	Leaves	Infusion/decoction/ macerated
Pérpetua	*Gomphrena arborescens* L. f.	Diarrhoea/influenza/coughs	Flower	Decoction	Cururu arnica
	Amaranthus sp.	Intestinal infection	Leaves/root	Decoction	Terramicina, perpétua branca
	Alternanthera brasiliana (L.) Kuntze	Infection/influenza/sore throat	Leaves	Decoction	Amaryllidaceae
	Cebola	*Allium cepa* L.	Influenza/wounds	Stalk	Decoction/cataplasm
Alho antigo	*Allium sativum* L.	Influenza/coughs/worms/ hypertension	Stalk	Decoction/cured in water	Anacardiaceae
	Manga	*Mangifera indica* L.	Influenza	Leaves	Syrup
Apiaceae	Funcho	*Foeniculum vulgare* Mill.	Influenza/sedative/stomachache/ hypertension/colds/coughs/ hoarseness	Leaves	Infusion/decoction/ syrup

Aipo	*Apium graveolens* L.	Chest pains/flatulence	Leaves	Macerated/infusion	Cheiro de coentro
	Eryngium foetidum L.	Influenza/swollen abdomen	Leaves	Decoction/cured in olive oil	Agrião
	Apium nodiflorum (L.) Lag.	Fever/influenza	Leaves/stalk	Decoction/in its natural state	Salsa
	Petroselinum crispum (Mill.) Fuss	Influenza/infection/kidney infection/cleans the womb/ menstrual colic/reduces the flow of blood during menstruation	Root/leaves	Decoction/beaten in the liquefier with water	Araliaceae
	Capitão	*Hydrocotyle bonariensis* Comm. ex Lam.	Wounds/cutaneous lesions on the skin	Leaves	Decoction
Asparagaceae	Salsaparrilha	*Herreria salsaparrilha* Mart.	Cracked hands/rheumatism/ infection	Root	Decoction/cured in *ping*a (Brazilian firewater)
Milindro	*Asparagus officinalis* L.	Chest pain	Leaves	Decoction	Asteraceae
	Boldo de árvore	*Acmella ciliata* (Kunth) Cass.	Headache/stomach/liver	Leaves	Macerated/decoction
Picão	*Bidens pilosa* L.	Influenza/hookworm disease/hepatitis/urine infection/jaundice/ stomachache/anaemia	Leaves/root	Decoction	Mata pasto
	Acanthospermum australe (Loefl.) Kuntze	Worms/depression/anaemia	Root	Decoction	Mentrasto
	Ageratum conyzoides (L.) L.	Dysentery/infection	Leaves	Infusion	
	Serralha	*Sonchus oleraceus* (L.) L.	Diabetes/flatulence/dysentery	Leaves	Stewed/beaten in the liquefier with water

(continued)

Table 9.1 (continued)

Family	Vernacular name	Scientific name	Recommended for	Part used	Method of preparation
Marcelão/novalgina	*Achillea millefolium* L.	Headache/influenza/fever/diarrhoea	Leaves	Decoction/infusion/syrup	Alecrim do mato
	Baccharis dracunculifolia DC.	Depression/bronchitis	Leaves/stalk	Infusion/decoction	Camomila
	Coreopsis grandiflora Hogg ex Sweet	Influenza/fever/stomachache/dysentery/headache/hypertension/sedative/wounds	Flower/leaves	Infusion/macerated	Dente de leão
	Taraxacum campylodes G.E.Haglund	Dysentery/cleansing the blood	Leaves	Infusion/in natura	Carqueja
	Baccharis trimera (Less.) DC.	Heart/stomach/cholesterol/wounds/liver/diabetes	Leaves	Decoction/infusion	Marcela de travesseiro
	Achyrocline satureioides (Lam.) DC.	Sedative	Leaves	Infusion	Marcela da horta
	Chamaemelum nobile (L.) All.	Stomachache/influenza/hypertension/headache/coughs/fever/stomach	Leaves	Infusion/macerated	Losna
	Artemisia absinthium L.	Worms/menstrual colic/diabetes/stomach pain/influenza	Leaves	Infusion/macerated	Timijio
	Tanacetum parthenium (L.) Sch.Bip.	Fever/influenza/headache/menstrual colic	Leaves/flower	Infusion/decoction	Batata da diabetes
	Smallanthus sonchifolius (Poepp.) H.Rob.	Diabetes	Stalk/leaves	In natura/macerated	Insulina
	Tithonia diversifolia (Hemsl.) A.Gray	Diabetes	Leaves	Decoction/macerated	Guaco
	Mikania glomerata Spreng.	Influenza/coughs/bronchitis	Leaves	Decoction/infusion	Cânfora, canforada

	Artemisia alba Turra	Sinusitis/body pain/ shortness of breath	Leaves	Cured in alcohol	
	Assapeixe	*Vernonanthura phosphorica* (Vell.) H.Rob.	Chest pain/wounds/influenza/ coughs	Leaves	Cured in *pinga* (Brazilian firewater)/ cured in water/ cataplasm
Voadeira	*Tagetes minuta* L.	Worms	Leaves	Decoction	Ponta livre
	Artemisia vulgaris L.	Stomach twinge	Leaves	Infusion	Quitoco
	Pluchea sagittalis Less.	Coughs/colds	Leaves	Decoction	Cravo de defunto
	Tagetes erecta L.	Influenza/coughs	Leaves	Decoction	Cardo santo
	Centaurea benedicta (L.) L.	Headache	Leaves	Infusion	Bardana
	Arctium minus (Hill) Bernh.	Stomach/cholesterol/ hypertension	Leaves	Beaten in the liquefier with water	Cambará
	Chromolaena squalida (DC.) R.M.King & H.Rob.	Influenza/coughs	Leaves	Decoction	Fumo de cachorro
	Elephantopus mollis Kunth	Influenza	Leaves	Decoction	Arnica
	Solidago chilensis Meyen	Body pain	Leaves	Cured in *cachaça* (Brazilian firewater)	Bignoniaceae
	Cinco folhas	*Sparattosperma leucanthum* (Vell.) K. Schum.	Wounds/cleansing the blood/ throat/infection	Leaves	Decoction
Bixaceae	Urucum	*Bixa orellana* L.	High cholesterol	Seed	Decoction
Boraginaceae	Confrei	*Symphytum officinale* L.	Cleansing the blood/body pain/ healing of wounds/dysentery/ inflamed throat/coughs	Leaves	Infusion/decoction/ macerated

(continued)

Table 9.1 (continued)

Family	Vernacular name	Scientific name	Recommended for	Part used	Method of preparation
Marmelinho	*Cordia axillaris* I.M.Johnst.	Infection	Leaves	Decoction	Borragem
	Borago officinalis L.	Influenza/stomachache	Flower	Decoction	Brassicaceae
	Menstruce	*Lepidium didymum* L.	Influenza/coughs/bronchitis	Stalk and leaves	Decoction
Couve	*Brassica oleracea* L.	Ulcers/reflux	Leaves	Beaten in the liquefier with water	Agrião
	Nasturtium officinale R.Br.	Fever/influenza	Leaves, stalk	Decoction/syrup	Bromeliaceae
	Abacaxi ananás	*Ananas comosus* (L.) Merr.	Catarrh	Fruit	Syrup
Cactaceae	Ora pro nóbis	*Pereskia grandiflora* Pfeiff.	Any kind of illness/diabetes	Leaves	Beaten in the liquefier with water
Mandacaru	*Cereus jamacaru* DC.	Bronchitis	Stalk	Syrup	Caricaceae
	Mamão	*Carica papaya* L.	Headache/body itching/fever/ indigestion/liver/dysentery	Flower/leaves	Infusion/decoction
Caryophyllaceae	Trevo branco	*Drymaria cordata* (L.) Willd. ex Schult.	Dysentery/stomachache	Leaves/stalk	Decoction
Combretaceae	Capitão do mato	*Terminalia argentea* Mart.	Cleansing the blood	Leaves	Decoction
Commelinaceae	Trapoerava	*Commelina erecta* L.	Kidney stones	Leaves	Infusion
Convolvulaceae	Batata doce	*Ipomoea batatas* (L.) Lam.	Toothache	Leaves	Decoction
Costaceae	Caninha do brejo/canela de macaco	*Costus* spicatus (Jacq.) Sw.	Kidney stones/urinary infection/ bladder inflammation	Leaves and stalk	Decoction
Crassulaceae	Saião	*Kalanchoe gastonis-bonnieri* Raym.-Hamet & H. Perrier	Burning in the stomach/coughs	Leaves	Infusion/beaten in the liquefier with milk

Basto	*Sedum dendroideum* Moc. & Sessé ex DC.	Stomach pain/gastritis/ wounds	Leaves	Beaten in the liquefier with water/ in its natural state/ cataplasm	Fortuna
	Bryophyllum pinnatum (Lam.) Oken	Wounds	Leaves	Cataplasm	Saião
	Kalanchoe laciniata (L.) DC.	Sore throat	Leaves	Macerated	Cucurbitaceae
	Melão de são caetano	*Momordica charantia* L.	Influenza/headache/ill health	Leaves	Infusion/decoction
Abóbora d´anta	*Cayaponia podantha* Cogn.	Rheumatism	Root	Decoction	Chuchu
	Sechium edule (Jacq.) Sw.	Hypertension/sedative	Leaves	Decoction	Ebenaceae
	Caqui	*Diospyros kaki* L.f.	Insomnia	Leaves	Infusion
Equisetaceae	Cavalinha	*Equisetum giganteum* L.	Hypertension/cancer/healing wounds/cleansing the blood/urine infection	Stalk	Decoction
Euphorbiaceae	Metiolate	*Jatropha multifida* L.	Wounds	Leaves	Cataplasm
Sangra-dágua	*Croton urucurana* Baill.	Wounds	Bark	Cataplasm	Mandioca
	Manihot esculenta Crantz	Diarrhoea	Root	Cured in water	Mamona
	Ricinus communis L.	Wounds	Leaves	Cataplasm	Fabaceae
	Carrapichinho	*Desmodium adscendens* (Sw.) DC.	Kidney stones/infection	Leaves	Infusion

(continued)

Table 9.1 (continued)

Family	Vernacular name	Scientific name	Recommended for	Part used	Method of preparation
Barbatimão	*Stryphnodendron adstringens* (Mart.) Coville	Wounds/removes excess liquid from the body	Bark	Decoction	Copaíba
	Copaifera langsdorffii Desf.	Healing agent	Fruit	Decoction	Jatobá
	Hymenaea courbaril L.	Illnesses of the digestive system	Bark	Decoction	Samaduba
	Erythrina verna Vell.	Cleansing agent	Bark	Decoction	Olho de boi
	Dioclea violacea Benth	Stroke	Seed	Macerated	Angico
	Anadenanthera peregrina (L.) Speg.	Influenza, throat	Bark	Decoction	Bardana
	Erythrina speciosa Andrew	Cleansing agent	Bark	Cooking the bark	Pata de vaca
	Bauhinia forficata Link	Diabetes	Leaves	Infusion	Lamiaceae
	Boldo	*Plectranthus barbatus* Andrews	Headache/dysentery/liver/ influenza/hypertension	Leaves	Macerated
	Boldo	*Plectranthus amboinicus* (Lour.) Spreng.	Stomach ailments/headache	Leaves	Macerated
	Zé serafim, mata pasto, mané magro	*Leonurus sibiricus* L.	Dysentery/stomachache/ hypertension/headache/influenza/ thinning the blood/stroke/wounds/ diabetes/coughs	Leaves/flower	Macerated/cataplasm/ infusion

Alfavaca	*Ocimum carnosum* (Spreng.) Link & Otto ex Benth.	Influenza/hoarseness/ sedative/coughs	Leaves	Infusion/decoction	Cravo
	Ocimum gratissimum L.	Coughs/influenza/sedative/ hoarseness/colds	Leaves	Infusion/decoction/ syrup	Hortelã roxo/hortelã liso/hortelã verde/ hortelã da horta
	Mentha x villosa Huds.	Influenza/stomachache/ worms/inflammation/ sedative/infection/coughs/ throat inflammation/ wounds	Leaves	Infusion/decoction/ macerated	Hortelã menta/hortelã pimenta
	Mentha arvensis L.	Influenza/sore throat/ worms/coughs/sedative/ indigestion	Leaves	Infusion	Hortelã branco
	Mentha suaveolens Ehrh.	Worms/influenza/swollen feet/stomachache/ inflammation/sedative/ throat inflammation/ coughs/infection/ hypertension/toothache/ wounds	Leaves	Infusion/decoction	Hortelã balinha
	Mentha x piperita L.	Influenza/sedative/inflamed throat/stomachache	Leaves	Decoction	Poejo
	Mentha pulegium L.	Influenza/rashes in children/bronchitis/coughs/ stomachache/sedative	Leaves	Infusion/decoction	Levante
	Mentha sp.	Influenza/body pain/ sedative/bronchitis/colds/ stomachache/coughs/ influenza	Leaves	Infusion/decoction	Levante

(continued)

Table 9.1 (continued)

Family	Vernacular name	Scientific name	Recommended for	Part used	Method of preparation
	Mentha spicata L.	Earache	Leaves	Toasted	Manjerona
	Origanum vulgare L.	Influenza/stomachache/ sedative	Leaves	Infusion/decoction	Hortelã do mato
	Peltodon radicans Pohl	Wounds/infection/ influenza/coughs	Leaves	Infusion	
	Salvia	*Salvia officinalis* L.	Body pain/sedative/chest pain/ toothache/influenza/kidney stones	Leaves	Infusion/decoction/ macerated
Alecrim da horta	*Rosmarinus officinalis* L.	Chest pain/depression/ sadness/sedative/ hypertension/menstrual colic/nervousness/ headache/coughs/heart	Leaves/stalk	Infusion/cured in water/macerated/ decoction	Erva terrestre
	Glechoma hederacea L.	Coughs/influenza/fever/ colds/diarrhoea	Leaves	Infusion/decoction/ toasted	Erva cidreira da horta
	Melissa officinalis L.	Sedative/influenza/ hypertension/menstrual colic	Leaves	Infusion/decoction	Manjericão
	Ocimum basilicum L.	Influenza/depression/ nervousness/sedative/ coughs	Leaves	Infusion/decoction	Papagaio
	Aegiphila integrifolia (Jacq.) B.D.Jacks.	Burns	Fruit	Decoction	Cordão de frade
	Leonotis nepetifolia (L.) R. Br.	Headache/haemorrhage/ lowers uric acid/ stomachache/coughs/ pneumonia/influenza	Leaves	Infusion/decoction	Alfazema
	Lavandula angustifólia Mill.	Stomachache in babies/ heart/sedative	Leaves	Infusion/decoction	Lauraceae
	Abacate	*Persea americana* Mill.	Coughs/kidney stones/urinary infection/hypertension	Leaves	Decoction/syrup

Loranthaceae	Erva de passarinho	*Struthanthus* sp.	Pain/suffocation/bronchitis/influenza	Leaves	Decoction/macerated
Erva de passarinho	*Struthanthus* sp.	Worms	Leaves	Decoction	Lythraceae
	Romã	*Punica granatum* L.	Throat infection	Fruit	Decoction
Malpighiaceae	Douradinha	*Heteropterys macrostachya* A.Juss.	Kidney stones	Leaves	Infusion
Malvaceae	Algodão	*Gossypium barbadense* L.	Infection/cleanses the uterus/falls/healing of wounds	Leaves/flower	Infusion/decoction
Açoita-cavalo	*Luehea grandiflora* Mart.	Cleansing the blood	Leaves	Infusion	Malva lisa
	Malva sp.	Coughs/throat infection	Leaves	Infusion	Meliaceae
	Cutieira	*Guarea guidonia* (L.) Sleumer	Laxative/cleanses the blood	Fruit	In its natural state
Menispermaceae	Buta	*Abuta* sp.	Rheumatism	Root	Decoction
Moraceae	Amora preta	*Morus nigra* L.	Hypertension/hormone replacement/headache/heat flashes characteristic of menopause	Leaves	Infusion/decoction
Myrtaceae	Eucalipto	*Eucalyptus* sp.	Influenza/sinusitis	Leaves	Syrup/cured in alcohol
Goiaba	*Psidium guajava* L.	Diarrhoea/toothache	Leaves/bark	Infusion/decoction	Pitanga
	Eugenia uniflora L.	Stomachache	Leaves	Decoction	Musaceae
	Banana	*Musa paradisiaca* L.	Influenza/diarrhoea	Navel/leaves/stalk	Decoction/in its natural state
Nyctaginaceae	Erva tostão	*Boerhavia diffusa* L.	Kidney stones/liver	Root	Decoction
Bonina	*Mirabilis jalapa* L.	Wounds/infection	Leaves	Beat in the liquefier with aloe	Oxalidaceae
	Carambola	*Averrhoa carambola* L.	Diabetes	Leaves	Decoction
Passifloraceae	Maracujá	*Passiflora alata* Curtis	Sedative	Leaves	Decoction
Phyllanthaceae	Quebra-pedra	*Phyllanthus niruri* L.	Urinary infection	Root	Decoction

(continued)

Table 9.1 (continued)

Family	Vernacular name	Scientific name	Recommended for	Part used	Method of preparation
Phytolaccaceae	Guiné	*Petiveria alliacea* L.	Headache/toothache/influenza	Leaves	Infusion/bath
Piperaceae	Jamborandi	*Piper aduncum* L.	Hair	Leaves	Decoction
Capeva	*Piper umbellatum* L.	Stuck catarrh/influenza/stomach	Leaves	Cataplasm	Plantaginaceae
	Tansagem	*Plantago major* L.	Urinary infection/throat infection/sedative/influenza/expectoration/stomachache	Leaves/root	Infusion/decoction
Tansagem	*Plantago australis* Lam.	Urinary infection/throat infection	Leaves/root	Infusion/decoction	Vassorinha de são Pedro
	Scoparia dulcis L.	Kidney stones	Leaves	Decoction	Poaceae
	Milho	*Zea mays* L.	Urinary infection/detox for the kidneys	Flower	Decoction
Pé de galinha	*Eleusine indica* (L.) Gaertn.	Kidney stones/bronchitis/influenza	Root/leaves/root	Decoction	Cana miúda
	Saccharum officinarum L.	Hypertension	Leaves	Decoction	Grama miúda
	Cynodon dactylon (L.) Pers.	Kidney stones	Leaves	Decoction	Lágrima de nossa senhora
	Coix lacryma-jobi L.	Fever/body pain/urine infection	Leaves, root	Decoction/bath	Capim gordura
	Melinis sp.	Hypertension	Leaves	Infusion	Capim cidreira
	Cymbopogon citratus (DC.) Stapf	Sedative/hypertension/coughs	Leaves	Infusion/decoction	Polygalaceae
	Encarangada	*Diclidanthera laurifolia* Mart.	Body itch	Leaves	Decoction

Polygonaceae	Erva de bicho	*Persicaria punctata* (Elliott) Small	Dandruff	Leaves	Decoction
Solitária	*Homalocladium platycladum* (F.Muell.) L.H. Bailey	Worms	Leaves	Decoction	Pteridaceae
	Avenca	*Adiantum* sp.	Fatigue/influenza	Leaves	Decoction
Rosaceae	Ameixa	*Eriobotrya japonica* (Thunb.) Lindl.	Hypertension	Leaves	Decoction
Amora vermelha do mato	*Rubus sellowii* Cham. & Schltdl.	Sore throat	Leaves	Syrup	Amora
	Rubus rosifolius Sm.	Throat problems	Leaves	Syrup	Rosa branca
	Rosa alba L.	Wounds/sores/infection	Flower	Cooked in milk	Fragaria
	Fragaria vesca L.	Influenza/stomachache	Leaves	Decoction/infusion	Rosa verde
	Rosa chinensis cv. Viridiflora	Haemorrhage	Leaves	Decoction	Grimonia
	Agrimonia eupatoria L.	Lack of appetite/diarrhoea/ headache/worms	Leaves	Decoction	Rubiaceae
	Cura-tombo	*Chiococca alba* (L.) Hitchc.	Falls/body pain	Leaves	Decoction
Mária preta	*Palicourea tetraphylla* Cham. & Schtdl.	Kidney stones	Leaves	Infusion	Rutaceae
	Mexirica	*Citrus reticulata* Blanco	Sedative/influenza/depression/ coughs	Leaves	Decoction

(continued)

Table 9.1 (continued)

Family	Vernacular name	Scientific name	Recommended for	Part used	Method of preparation
Limão	*Citrus limon* (L.) Osbeck	Influenza/stomachache/ thinning the blood/wounds/ diarrhoea	Leaves/fruit	Toasted/decoction/ juice	Laranja
	Citrus sinensis (L.) Osbeck	Influenza/coughs/headache/ sedative/hypertension/lack of appetite/heart/ constipation	Leaves/fruit	Toasted/decoction/ infusion	Arruda
	Ruta graveolens L.	Headache/body pain/ infection in the uterus/ swollen eye/fever/ migraine/colds	Leaves	Infusion/macerated/ bath/cured in water	Laranja da terra
	Citrus aurantium L.	Hypertension/sedative	Leaves	Infusion	Paratudo
	Hortia arborea Engl.	Diabetes	Bark	Decoction	Scrophulariaceae
	Barbaçu	*Buddleja stachyoides* Cham. & Schltdl.	Influenza	Flower	Decoction
Siparunaceae	Negramina, folha santa	*Siparuna guianensis* Aubl.	Influenza/fever	Leaves	Decoction
Solanaceae	Fruta de lobo	*Solanum lycocarpum* A. St.-Hil.	Influenza	Flower	Decoction

Berinjela	*Solanum melongena* L.	Cholesterol	Fruit	Cured in water	Erva moura, amora dormideira
	Solanum americanum Mill.	Sedative	Leaves and fruit	Infusion/in natura	Tomatinho
	Lycopersicon pimpinellifolium L.	Wounds/tooth infection/ influenza/coughs/ hoarseness	Leaves/root	Decoction	Fumo
	Nicotiana tabacum L.	Wounds	Leaves	Cataplasm	Jurubeba
	Solanum paniculatum L.	Worms	Fruit	Decoction	Meladoma
	Brugmansia suaveolens (Humb. & Bonpl. Ex Willd.) Bercht. & J.Presl	Sedative	Leaves	Infusion	Costa branca
	Solanum cernuum Vell.	Pain	Leaves	Decoction	Tropaeolaceae
	Chaga	*Tropaeolum majus* L.	Influenza/intestinal ailments/ cleansing the blood/infection/ mycosis	Flower	Decoction/cooked in milk/cataplasm
Urticaceae	Urtiga	*Urtica dioica* L.	Hair	Leaves	Decoction
Embaúba vermelha	*Cecropia glaziovii* Snethl.	Spinal pain	Leaves	Bath	Verbenaceae
	Mal-me-quer	*Lantana camara* L.	Influenza/allergy/throat inflammation	Leaves	Infusion
Erva cidreira de árvore	*Lippia alba* (Mill.) N.E.Br. ex Britton & P. Wilson	Coughs/influenza/sedative/ symptoms of the menopause	Leaves and stalk	Infusion/decoction/ beaten in the liquefier with water	Jurubão
	Stachytarpheta cayennensis (Rich.) Vahl	Wounds/kidney stones/ joint pain	Leaves	Cataplasm/decoction	Violaceae
	Violeta	*Viola odorata* L.	Dizziness	Leaves	Decoction
	Piraguaia	*Anchietea pyrifolia* (Mart.) G.Don	Cleansing the blood	Bark	Cured in *cachaça* (Brazilian firewater)

(continued)

Table 9.1 (continued)

Vitaceae	Insulina	*Cissus verticillata* (L.) Nicolson & C.E. Jarvis	Diabetes	Leaves	Infusion/decoction
Xanthorrhoeaceae	Babosa	*Aloe vera* (L.) Burm.f.	Influenza/growth of hair/wounds/ cancer/burns/infection	Leaves	Decoction/cataplasm
Zingiberaceae	Pacová	*Alpinia zerumbet* (Pers.) B.L.Burtt. & R.M.Sm.	Hypertension	Leaves	Decoction
Lírio do brejo	*Alpinia purpurata* (Vieill.) K. Schum.	Wounds	Leaves/stalk	Cataplasm	Açafrão
	Curcuma zedoaria (Christm.) Roscoe	Cancer/leukaemia/ cholesterol	Stalk	Powder	Mariazinha
	Hedychium coronarium J.Koenig	Colic pain	Leaves	Decoction/bath	Gengibre
	Zingiber officinale Roscoe	Sore throat/hoarseness/ influenza	Stalk	Decoction	

Rutaceae with 5 species each (3.78% each); and Poaceae, Brassicaceae and Apiaceae with 4 species each (3.03% each). These families account for 56.02% of the species mentioned by the community. The other 42 families had only 1, 2 or 3 species mentioned.

The most representative families in the community at Santo Antônio do Guiné were Asteraceae with 25 species (17.73%); Lamiaceae with 19 species (13.47%); Rutaceae with 6 species (4.54%); Apiaceae, Poaceae and Rosaceae with 5 species each (3.78% each); and the Fabaceae with 4 species (3.03%). These families together accounted for just over half (50.11%) the species mentioned for the community as a whole. The remaining 46 families had 1, 2 or 3 species mentioned at the interviews.

Many different projects of ethnobotany in different parts of Brazil have shown the Asteraceae and the Lamiaceae as the most important families, showing that the use of its species is well consolidated in Brazil's popular pharmacopoeia for the treatment of several diseases and ailments (da Silva et al. 2012; Battisti et al. 2013; Brito and Senna-Valle 2011; Oliveira and Menini-Neto 2012; do Oliveira and de Gondim 2013; Neto et al. 2014; Cunha et al. 2015; Flor and Barbosa 2015; Messias et al. 2015). These two families are also widely used in other parts of the world and always rank among the most important (Tefera and Kim 2019; Vinagre et al. 2019).

The ten medicinal species most mentioned by the interviewees in the community of Santo Antônio dos Quilombolas were *Mentha* x *villosa* Huds. (65.45%), *Foeniculum vulgare* Mill. (50.90%), *Leonurus sibiricus* L. (49.09%), *Lippia alba* (Mill.) N.E.Br. ex Britton & P. Wilson (43.63%), *Plantago major* L. (40.0%), *Coreopsis grandiflora* Hogg ex Sweet (21.81%), *Chamaemelum nobile* (L.) All. (27.27%), *Mentha pulegium* L. (25.45%), *Rosmarinus officinalis* L. (25.45%) and *Plectranthus barbatus* Andrews (23.63%).

The medicinal species most mentioned by interviewees in the community of Santo Antônio do Guiné were *Mentha* x *villosa* (65.33%), *Leonurus sibiricus* (56%), *F. vulgare* (50.66%), *M. pulegium* (46.66%), *Mentha suaveolens* Ehrh (38.66%), *Mentha* sp. (36%), *P. major* (34.66%), *C. nobile* (33.33%), *Melissa officinalis* L. (28%), *Glechoma hederacea* L. (25.33%) and *R. officinalis* (25.33%).

Most of the medicinal plants mentioned and used by the community of Santo Antônio dos Quilombolas are collected in backyards (84.09%), in fragments of forest (7.57%), in grazing land (4.54%) and in swampy areas throughout the community (3.78%). In the community of Santo Guiné, the backyards have also been the most important sources of resources involving medicinal plants, and here 86.52% of the plants were collected in backyards, 9.21% in fragments of forest, 2.83% in pastures and 1.41% in swampy areas.

This prevalence of medicinal plants collected in yards is justified in the two communities, as women are the people who know these plants better. Many medicinal species are cultivated close to kitchens or at the sides of houses, making the plants more accessible to women. A larger number of medicinal plants collected in yards back up what has been found in other works on ethnobotany carried out in *quilombola* communities in Brazil (da Silva et al. 2012; Ferreira et al. 2014; Rogério 2014; de Siqueira 2014; de Nunes 2016).

The two *quilombola* communities in Piranga have the leaf as the most used element for preparation of medicines; this prevalence has been constant in the works on ethnobotany in Brazil (Di Stasi and Hiruma-lima 2002; Freitas et al. 2012; da Silva et al. 2012; Alves and Povh 2013; Rogério 2014; de Siqueira 2014). da Silva et al. (2012) say that the predominance of the use of leaves is due to two main factors: the fact that it is available the whole year round and the fact that it is easy to collect. Castellucci (2000) also stresses that most of the active ingredients are in the leaves.

The method of preparation of medicinal plants in Santo Antônio dos Quilombolas was very varied, with tea being the main method, being 67.2% prepared mainly by cooking (decoction) (48.33%) or in a 'scalded' form (infusion) (18.88%), followed by maceration (17.7%), syrup (4.4%), beaten in the liquefier (3.33%), cataplasm (2.2%), juice (1.6%) and baths (1.1%).

In Santo Antônio do Guiné, the most common way of preparation was also that of a tea (74.8%), this being prepared mainly by decoction (47.3%), with the second most common method being infusion (27.53%). The other methods of preparation found in the community were maceration (11.1%), beaten in the liquefier (3.8%), cataplasm (3.8%), syrup (2.7%), in natural form (2.2%), juice (0.96%), bath (0.48%) and in powder form (0.48%).

Many ethnobotanical studies have suggested that decoction of medicinal plants is the method of preparation most used by the population studies. Here we highlight the studies made by Pinto et al. (2006), Merétika et al. (2010), Liporacci and Simão (2013), Alves and Povh (2013), Araújo and Lemos (2015) and Palheta (2015).

In Santo Antônio dos Quilombolas, most of the plants were recommended as treatment of diseases of the respiratory tract (29%), the next largest use being that of treatment of diseases related to symptoms or signs in general (24%), such as headache, fever, inflammation and body pain and sedative (for nervousness), followed then by infectious and parasite diseases (19%), such as worms, infection and stomachache (diarrhoea) and disorders of the circulatory system (14%), such as hypertension, and for cleansing the blood.

In Santo Antônio do Guiné, plants were mainly prescribed for illnesses involving symptoms or general signs (50%), including headache, fever, sedative (nervousness), throat inflammations and body pain, followed by diseases of the respiratory tract (47%), influenzas, colds, bronchitis and sinusitis; infectious and parasite diseases (26%) such as worms, infection and stomachache (diarrhoea); and diseases of the circulatory system (19%) such as hypertension and for cleansing the blood.

According to studies carried out in other *quilombola* communities in Brazil, diseases related to the respiratory tract have also stood out (Massarotto 2009; de Siqueira 2014; Rogério 2014; Linhares 2015). Illnesses related to the respiratory tract are among the most common ailments for treatment with medicinal plants, in several other academic papers on ethnobotany (Freitas et al. 2012; Aguiar and Barros 2012; Liporacci and Simão 2013; Rodrigues and Andrade 2014).

Among the plants that have been mentioned for treatment of ailments affecting the respiratory tract in Santo Antônio dos Quilombolas are *Leonurus sibiricus*, *Achillea millefolium*, *Mikania glomerata*, *Vernonanthura phosphorica*, *Mentha* x

villosa, *Plectranthus barbatus*, *Ocimum carnosum*, *Ocimum gratissimum*, *Artemisia absinthium*, *Origanum vulgare*, *Glechoma hederacea*, *Ocimum basilicum*, *Leonotis nepetifolia*, *Lantana camara*, *Citrus sinensis* and *Eucalyptus* sp.

In Santo Antônio do Guiné, the species mentioned include *Bidens pilosa*, *A. millefolium*, *Coreopsis grandiflora*, *Chamaemelum nobile*, *Tanacetum parthenium*, *M. glomerata*, *V. phosphorica*, *Tagetes erecta*, *Chromolaena squalida*, *Elephantopus mollis*, *O. carnosum*, *O. gratissimum*, *Mentha x villosa*, *Mentha* sp., *Salvia officinalis*, *G. hederacea*, *Melissa officinalis* and *Buddleja stachyoides*.

In both communities, medicinal plants have been reported as being the first option for treatment of diseases of the respiratory tract, meaning that they play an important preventive role within public health, with even the people interviewed having access to the government health system through health centres in the communities. Factors that should be taken into account, for these communities, on treating such illnesses almost exclusively with plants, lie in the efficiency of the treatment and in the lack of financial means for acquisition of medications, many of which are missing in the state health system.

The results presented in this research study show that the *quilombola* communities of Piranga make use of a wide range of medicinal plants. This result draws attention the need for preservation of knowledge about medicinal plants into the *quilombola* communities in Santo Antônio dos Quilombolas and Santo Antônio do Guiné, especially among the younger generations; for this reason, measures need to be taken, especially by the public sector, with the aim of giving value to this knowledge within the communities and publicising the rational use of such plants.

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