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Checklist of medicinal plants the Pijao La Tatacoa indigenous community (Villavieja, Huila – Colombia)

[Lista de plantas medicinales de la comunidad indígena Pijao La Tatacoa (Villavieja, Huila – Colombia)]

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Abstract: Ethnomedicine is essential for indigenous communities, especially those living in dry ecosystems, such as the Pijao La Tatacoa Indigenous People (Huila, Colombia), with whom the first ethnomedical list was co-constructed. For the study, 33 participants were recruited for a semi-structured interview and an ethnobotanical walk. The floristic data revealed 107 species with medicinal uses. The most representative family was Fabaceae (10 genera, 10 species), typical of the tropical dry forest, and prioritized due to the diversity of ethnomedical uses obtained. Regarding ethnomedicine, 14 categories and 71 ailments were identified, reflecting the healing role of the ethnoflora, as well as the preference for cultivated species (53%) and wild species (40%) present in the territory. Finally, the biological data are stored in the SiB Colombia and the GBIF, strengthening knowledge about the ethnoflora of the dry ecosystem. Additionally, this provides a resource for indigenous communities and decision-makers to preserve the territory and its culturally important species.

Keywords: Cultural significance; Ethnobotanical dataset; Tropical dry forest; Ethnomedicine; Medicinal use.

Resumen: La etnomedicina es esencial para las comunidades indígenas, especialmente aquellas que habitan en ecosistemas secos, como los Indígenas Pijao La Tatacoa (Huila, Colombia), con quienes se co-construyó el primer listado etnomédico. Para el estudio, se contó con 33 participantes para el desarrollo de una entrevista semiestructurada y una caminata etnobotánica. Los datos florísticos revelaron 107 especies medicinales. La familia más representativa fue Fabaceae (10 géneros, 10 especies), típica del bosque seco tropical, y priorizada por la diversidad de usos etnomédicos obtenidos. En cuanto a la etnomedicina, se establecieron 14 categorías y 71 padecimientos, reflejando el papel curativo de la etnoflora. Así como, la preferencia por las especies cultivadas (53%) y silvestres (40%) presentes en el territorio. Finalmente, los datos biológicos se almacenan en el SiB Colombia y en el GBIF, fortaleciendo el conocimiento sobre la etnoflora del ecosistema seco. Además, de brindar un insumo a las comunidades indígenas y tomadores de decisiones para la preservación del territorio y de sus especies culturalmente importantes.

Palabras clave: Importancia cultural; Conjunto de datos etnobotánicos; Bosque seco tropical; Etnomedicina; Uso medicinal

INTRODUCTION

The ecological characteristics of tropical dry forests, such as seasonal rainfall gradients and soil water availability, significantly influence the distribution, diversity, and primary productivity of plant communities in these ecosystems (Chaturvedi *et al.*, 2018; Mulu *et al.*, 2020). These forests harbor species with a high degree of endemism (Pizano & García, 2014), making their conservation status a global concern. Approximately 48.5% of dry forest areas have been transformed (Hoekstra *et al.*, 2004) primarily due to anthropogenic and environmental impacts (Herazo *et al.*, 2021). As a result, dry forests have been transformed into other ecosystems, threatening biodiversity and the ecosystem services that communities derive from these areas (Liu *et al.*, 2024; Shahzad *et al.*, 2024).

Assessing the species diversity of tropical dry forests is essential for implementing any conservation and sustainable use strategy for the ecosystem, serving as one of the important criteria and indicators currently used (Mulu *et al.*, 2020; Shahzad *et al.*, 2024). Additionally, the ways in which traditional rural communities carry out activities to meet their subsistence needs can contribute to biodiversity preservation (Rendón-Sandoval *et al.*, 2021), as is the case with species of ethnomedicinal importance. Thus, ethnoflora is an essential part of indigenous cultures and traditional medicine, and its conservation is also vital for maintaining biodiversity and preserving cultural heritage (Pennington *et al.*, 2009; Chaturvedi *et al.*, 2018; Mulu *et al.*, 2020).

Furthermore, lists of medicinal plants support ethnobiological (Orantes-García *et al.*, 2018; Albuquerque *et al.*, 2020; Mayo *et al.*, 2024) and ethnopharmacological research (Tamene *et al.*, 2023). These lists can provide crucial information to strengthen the long-term biocultural restoration of the dry forest (Sena *et al.*, 2022). It is important to highlight that medicinal species are part of local medical systems shaped by human interaction with the local biota (González-Villoria *et al.*, 2022; Albuquerque *et al.*, 2024), the availability of species (Souza *et al.*, 2024), and the cultural value of ethnomedicinal flora (Londoño-Betancourth, 2009; Bogale *et al.*, 2023; Barik *et al.*, 2024).

However, indigenous communities and their ancestral knowledge face a global threat due to complex socioeconomic processes that have led to systematic dispossession of their territories (Popolo,

2017). In Colombia, this situation has worsened. According to the United Nations (2011), 34 indigenous communities are at risk of extinction due to multiple factors, including internal armed conflict, the imposition of development projects on indigenous territories, state abandonment reflected in poverty, inefficient access to basic services, and cultural discrimination. This situation is further exacerbated by the acculturation processes occurring in indigenous communities (Pérez-Brignoli, 2017; Olko *et al.*, 2023).

For the Pijao La Tatacoa Indigenous Community (Huila, Colombia), with whom this study was conducted, the situation is no different. According to the Governor of the Pijao La Tatacoa (Personal communication), the provisions of the Pijao Safeguard Plan (a cultural management instrument defined by the Ministry of the Interior of Colombia) have not been fulfilled and are outdated, putting the community's ancestral knowledge and practices at risk. Moreover, no published information consolidates the cultural knowledge of the Pijao La Tatacoa. This is compounded by the few studies on the tropical dry forest in the municipality of Villavieja (Huila), where the Pijao La Tatacoa indigenous community coexists (Rosero-Toro *et al.*, 2018; Romero-Duque *et al.*, 2019). This situation is aggravated by the global trend toward the disappearance of medicinal species in tropical dry forests (Singh *et al.*, 2022).

Regarding ethnomedical knowledge, the Pijao La Tatacoa community needs to consolidate medicinal information due to the community's acculturation and migration processes. To address this, they organized a committee of knowledge keepers to recognize and safeguard traditional practices (Governor of the Pijao La Tatacoa, Personal communication). From this initiative, the community requested support to co-construct the first ethnomedical list of flora present in the tropical dry forest, including preparation methods, parts of plants used in treatments, the origin of the plants (wild, cultivated, and/or purchased), the conservation status of the species, and ethnomedical categories.

MATERIAL AND METHODS

Study area

The Pijao La Tatacoa Indigenous Community is located in the San Nicolas village of the municipality of Villavieja (Huila, Colombia), between

3°19'45.35"N and 75°12'9.66"W (Figure No. 1). The Reserve spans approximately 290 hectares, held collectively, and is divided into fallow land, pasture, cultivation areas, and forest. The ecosystem corresponds to a tropical dry forest, characterized by a bimodal rainfall pattern (March-April; September-December), with annual precipitation ranging from

730 to 1314 mm, and an average temperature of 27°C (Romero-Duque *et al.*, 2019). Additionally, the Reserve is part of the buffer zone of the La Tatacoa Regional Integrated Management District, which holds ecological and tourism significance for the department of Huila (Colombia).

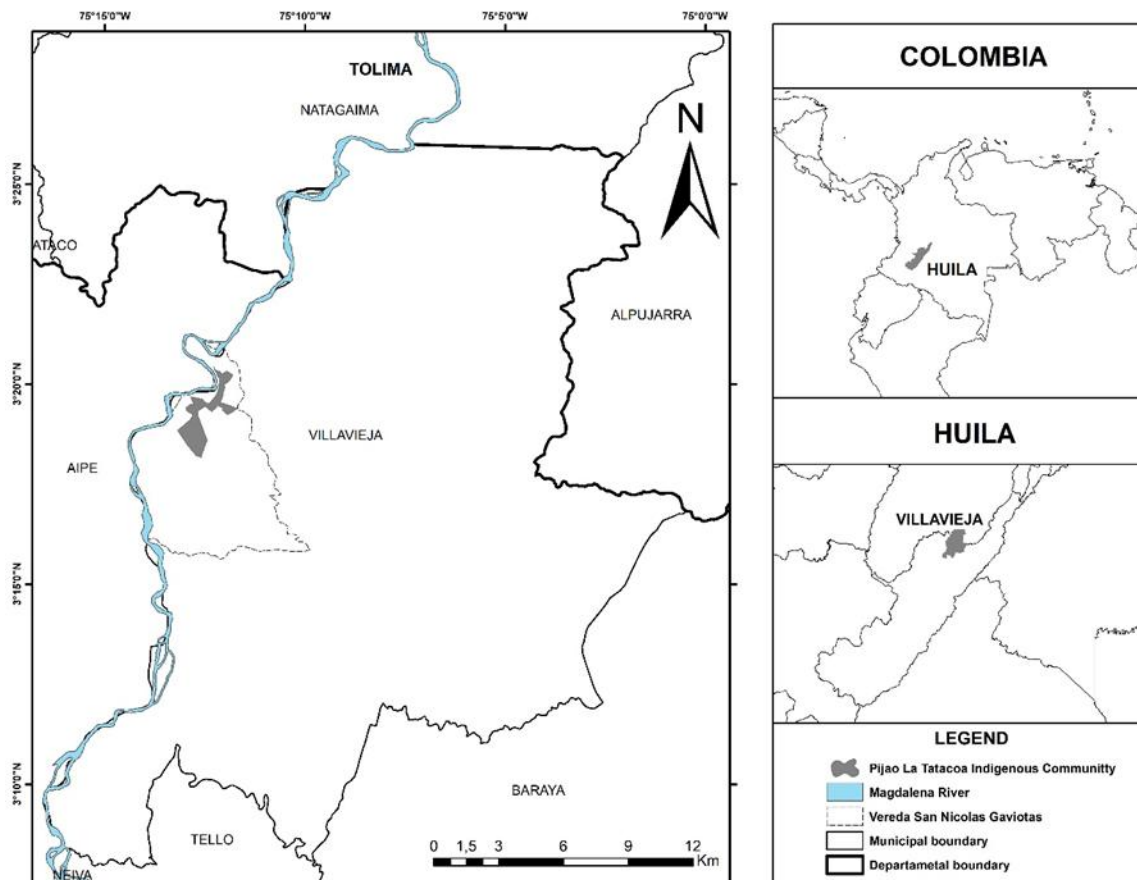


Figure No. 1
Location of the Pijao La Tatacoa Indigenous Community

The Pijao La Tatacoa Indigenous Reserve has a population of 163 people distributed among 51 families. The primary economic activity is agriculture. The main crops include plantain, cassava, sugar cane, loofah, cotton, cacao, rice, and fruit trees such as lemon and mango. However, the Reserve lacks a healthcare facility within its territory, with the nearest one located approximately 45 minutes away in the municipal center. As a result, traditional medicine serves as the primary source of healthcare for treating and preventing diseases or ailments. Given this situation, the Pijao La Tatacoa Indigenous

Community requested support to co-construct a list of ethnomedical species that would allow them, as an indigenous group, to generate processes for the conservation of plant species and their cultural heritage.

Selection of Participants

Participants were selected using the Snowball Sampling method, of a non-probabilistic type, which is based on references from initial subjects to generate additional subjects (Mendieta, 2015), based on various criteria: residing in the area for over 10

years, being over 18 years old, having the time availability to participate in the project, and possessing knowledge about the medicinal plants used in the community. These criteria were agreed on with the Pijao La Tatacoa Indigenous Community, considering that the Pijao La Tatacoa Indigenous Reserve does not have the figure of a traditional physician.

Based on these requirements, 33 participants were involved in the study, comprising 16 women and 17 men, aged between 18 and 78 years. All participants have completed primary education. Finally, the Community Action Board of the Pijao La Tatacoa Community approved the research through free and informed consent, adhering to the Code of Ethics for research, action research, and ethnoscientific collaboration (Cano-Contreras *et al.*, 2016).

Data Collection

To gather information, qualitative variables (Guber, 2001) were used to delve into the ethnomedical flora. A semi-structured interview was conducted to identify the species, medicinal uses, preparation methods, plant parts used, and the origin of the plants. In this context, "wild" refers to plants that grow spontaneously in the ecosystem, "cultivated" refers to those managed by humans, which may be

within a managed area or obtained from external crops, and "purchased" refers to plants acquired through monetary exchange with another community member or outsider, which may be wild or cultivated.

For in-field identification of ethnomedical flora, ethnobotanical walks with each interviewee (Geilfus, 2002), were conducted through areas connecting homes, crops, and the forest. During these walks, botanical collections were made of species that were flowering and/or fruiting. Identifications were carried out using specialized keys for each botanical family and corroborated with herbarium specimens. Scientific names were confirmed according to the WFO Plant List (<https://wfoplantlist.org>), using APG IV. The botanical collections were deposited in the Herbarium of the Universidad Surcolombiana, SURCO. The conservation statuses of the species were checked using the IUCN Red List of Threatened Species (<https://www.iucnredlist.org>).

Finally, to organize the diseases and/or ailments recorded by the community, 14 categories were established based on the ethnobotanical studies of Bhattarai *et al.* (2010) and Mendoza *et al.* (2021) (Table No. 1). These categories were adapted based on the participants' answers. Each category included the ailments described by the interviewees.

Table No. 1
Categorization of Diseases and Ailments in the Pijao La Tatacoa Indigenous Community.

Category	Ailments
Reproductive System	Sexual impotence, prostate issues, labor pain, mastitis, contraceptive use, and menstrual pain.
Dental	Toothache.
Cardiovascular	Hemorrhage, circulation issues, blood pressure, heart conditions.
Dermatological	Rash, fungi, burns, chickenpox, acne, vitiligo, facial care, wound healing, dermatitis, bruises, abscesses, alopecia, insect repellent.
Digestive	Stomach pain, ulcers, acidity, liver cleansing, indigestion, vomiting, diarrhea, deworming, constipation, hepatitis, malaria, colon issues, stomach hernia.
Endocrine and Metabolism	Diabetes, anemia, cholesterol, antioxidant.
Fever	Fever.
Lymphatic	Tonsillitis, immunity, infectious diseases.
Nervous System	Nervousness, epilepsy, headaches.
Musculoskeletal	Back pain, bone healing, rheumatism, knee pain, wind in the back or chest.
General Health	Weight loss, general discomfort, cancer, dehydration, heatstroke, insomnia.
Renal-Urological	Fluid retention, kidney issues, urinary problems, kidney stones.
Respiratory	Cold, lung cleansing, asthma, sinusitis, COVID-19.
Sensory System	Earache, eye irritation, vertigo.

All ethnomedical information was transcribed and later consolidated per species. The ethnomedical flora information reported by each interviewee was systematized in Excel, taking into account the used part, methods of preparation, category of diseases, and ailments. Finally, the ethnomedical information was shared with the participants to confirm consensus on the use of medicinal species.

RESULTS AND DISCUSSION

A total of 107 species with medicinal uses were recorded, consisting of 106 angiosperms and one pteridophyte (*Equisetum giganteum* L.) (Appendix 1). These species were grouped into 93 genera and 48 families. The most representative family in terms of genera and species was Fabaceae, with 10 genera and 10 species, followed by Lamiaceae (6 genera, 8 species) and Asteraceae (6 genera, 6 species) (Figure No. 2), while 34 families were represented by only one species.

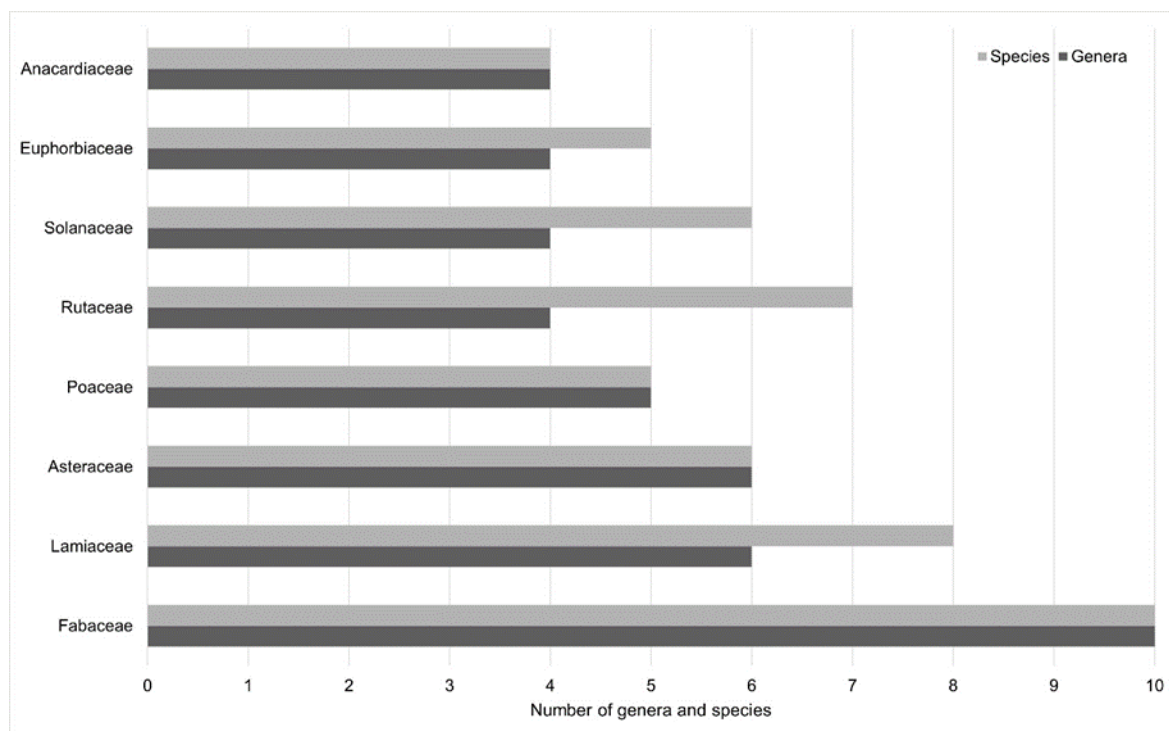


Figure No. 2

Representation of Medicinal Genera and Species by Botanical Families Reported by the Pijao La Tatacoa Indigenous Community, Villavieja (Huila)

These figures are similar to those reported for the Pijao Community of Natagaima, where Fabaceae and Asteraceae (9 species) and Lamiaceae (7 species) had the highest number of medicinal species (Mendoza *et al.*, 2021). Similarly, in the Doche community (Villavieja – Huila), Fabaceae was the most representative family in terms of the number of species (13 genera and 15 species) (Rosero-Toro *et al.*, 2018). Additionally, Romero-Duque *et al.* (2019) reported the Fabaceae family as the richest and most abundant species for the tropical dry forest of the upper Magdalena River basin. Furthermore, the

preference for these botanical families has been noted in ethnomedical studies conducted in Ecuador (e.g. Jiménez González *et al.*, 2021), Brazil (e.g. Souza *et al.*, 2018; da Silva *et al.*, 2019), Mexico (e.g. Campos-Saldaña *et al.*, 2018; Orozco-Martínez *et al.*, 2020), and Colombia (e.g. Carbonó-Delahoz & Dib-Diazgranados, 2013; Travassos de Lima *et al.*, 2022).

The reported ethnomedical richness (107 species) surpasses that of other studies conducted with rural communities. For example, in two localities in Sucre (Colombia), with a sample of 285 participants, only 85 species were reported (Barrios-

Paternina & Mercado-Gómez, 2014). In Villa Corzo (Mexico), a sample of 119 people reported 73 plants with at least one medicinal use (Campos-Saldaña *et al.*, 2018), and in Santiago Quotepec, Oaxaca (Mexico), 60 participants reported 66 ethnomedical species (Orozco-Martínez *et al.*, 2020).

For the Pijao La Tatacoa Indigenous Community medicinal plants are the primary option for treating ailments or diseases. As a result, they have managed to preserve the cultural heritage of their species and manage the tropical dry forest

agroecosystem for the conservation and handling of these species. Among the native species of the dry forest, arepo (*Opuntia elatior* Mill.) (Figure No. 3) was found, cited for reducing inflammation caused by blows and sunstroke. Previous studies on this species have focused on evaluating its nutritional and pharmacological potential (Das *et al.*, 2021) and on toxicological studies (Sanyal, 2015). This has led to the need to prioritize conservation strategies due to unsustainable extraction, which has put it at risk of extinction (Das *et al.*, 2021).

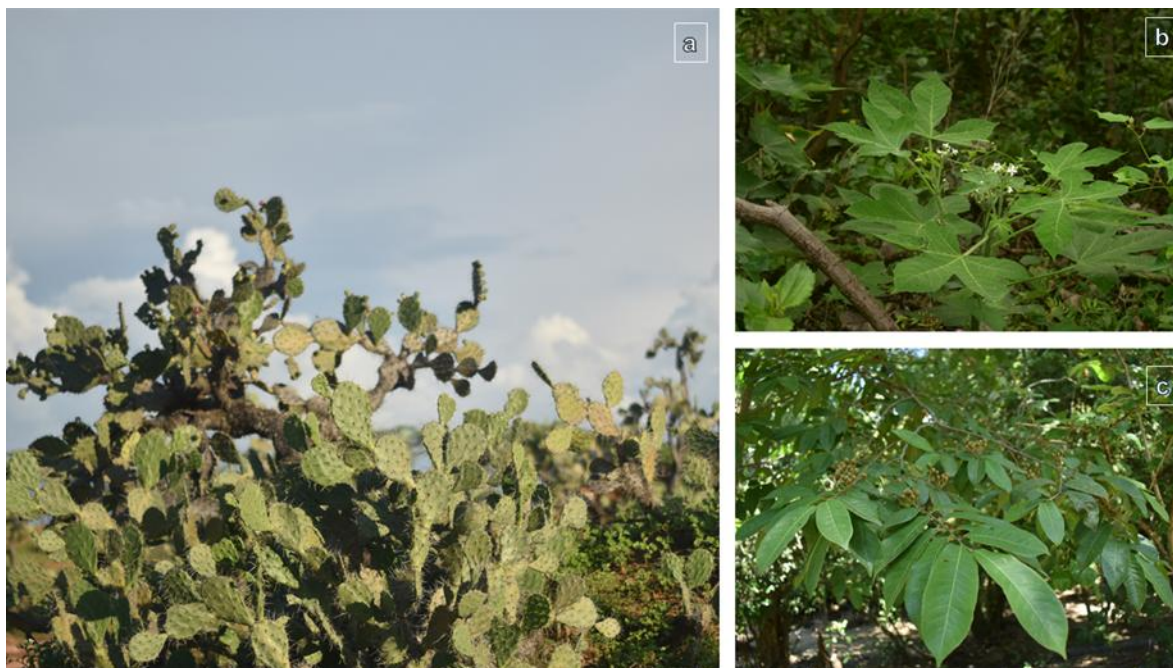


Figure No. 3

Medicinal Species of the Tropical Dry Forest: a) arepo (*Opuntia elatior*), b) pringamosa (*Cnidoscolus urens*), c) varazón (*Casearia corymbosa*)

Also cited was varazón (*Casearia corymbosa* Kunth) (Figure No. 3), used to alleviate tooth pain. Although studies have not reported this use, there is evidence of its use for the treatment of malignant skin neoplasms (Caamal-Fuentes *et al.*, 2011). For pringamosa (*Cnidoscolus urens* (L.) Janti), the community reported its use for reducing bruising, improving blood circulation, and curing the flu. This supports the findings of Albuquerque *et al.* (2007) and Moura *et al.* (2019), where the species has been used against tumors, kidney disorders, dysentery, hemorrhages, bleeding, appendicitis, and rheumatism.

According to the conservation status, 28 species are categorized by the IUCN (Table No. 2), with 26 species listed as of Least Concern, including pronto alivio (*Lippia alba* (Mill.) N.E.Br. ex Britton & P. Wilson), totumo (*Crescentia cujete* L.), pringamosa (*Cnidoscolus urens* (L.) Janti), guásimo (*Guazuma ulmifolia* Lam.), and arepo (*O. elatior*). Algarrobo (*Hymenaea courbaril* L.) listed as Near Threatened. These species have previously been reported for their cultural importance to a rural community in Villavieja (Huila, Colombia) (Rosero-Toro *et al.*, 2018). The same authors reported

guásimo as one of the species of greatest cultural significance, with the most recorded uses (medicinal, wood, fuel, forage, and monetary).

Various studies show that the priority of species conservation can be influenced by people's perceptions of the attributes and services obtained from plants (da Silva *et al.*, 2019; Jiménez González *et al.*, 2021). Indigenous and Local Knowledge (ILK) is intrinsically connected to knowledge holders' worldviews and relationships to their environments

(Nemogá *et al.*, 2022). Therefore, communities co-evolve with their environments, so the decisions they make regarding the ecosystem will positively or negatively affect their well-being (Ferreira *et al.*, 2022). It is hoped that this information can be used by decision-makers for territory management and the proper prioritization of species targeted for conservation (da Silva *et al.*, 2019; Rocha *et al.*, 2019; Campos & Albuquerque, 2021).

Table No. 2
Medicinal Species Categorized with a Conservation Status

Family	Scientific Name	Common Name
Near Threatened		
Fabaceae	<i>Hymenaea courbaril</i> L.	Algarrobo
Least Concern		
Amaranthaceae	<i>Chenopodium ambrosioides</i> L.	Paico
Apiaceae	<i>Eryngium foetidum</i> L.	Cilantro cimarrón
Asteraceae	<i>Bidens pilosa</i> L.	Chipaca
Bignoniaceae	<i>Crescentia cujete</i> L.	Totumo
	<i>Jacaranda caucana</i> Pittier	Gualanday
Caricaceae	<i>Carica papaya</i> L.	Papaya
Cactaceae	<i>Opuntia elatior</i> Mill.	Arepo
Euphorbiaceae	<i>Cnidioscolus urens</i> (L.) Janti	Pringamosa
Fabaceae	<i>Brownea ariza</i> Benth.	Palo de Cruz
	<i>Desmanthus virgatus</i> (L.) Willd.	Desinchadera
	<i>Grona adscendens</i> (Sw.) H.Ohashi & K.Ohashi	Cargadita
	<i>Mimosa pudica</i> L.	Dormidera
Lamiaceae	<i>Mesosphaerum suaveolens</i> (L.) Kuntze	Mastranto
	<i>Ocimum campechianum</i> Mill.	Albahaca
Malvaceae	<i>Guazuma ulmifolia</i> Lam.	Guásimo
Moraceae	<i>Maclura tinctoria</i> (L.) D.Don ex G.Don	Dinde
Muntingiaceae	<i>Muntingia calabura</i> L.	Chicható
Passifloraceae	<i>Passiflora ligularis</i> Juss.	Granadilla
	<i>Passiflora maliformis</i> L.	Cholupa
Petiveriaceae	<i>Petiveria alliacea</i> L.	Anamú
Plantaginaceae	<i>Plantago major</i> L.	Llantén
Poaceae	<i>Zea mays</i> L.	Maíz
Solanaceae	<i>Capsicum annuum</i> L.	Ají
Urticaceae	<i>Cecropia peltata</i> L.	Yarumo
Verbenaceae	<i>Lantana trifolia</i> L.	Barba de Chivo
	<i>Lippia alba</i> (Mill.) N.E.Br. ex Britton & P.Wilson	Pronto alivio
	<i>Verbena litoralis</i> Kunth	Verbena

Regarding growth habits, 51 species were identified as herbs (47.7%), followed by 34 species as trees (31.8%), and 22 species as shrubs (20.6%) (Appendix No. 1). These findings are consistent with

previous studies by Carbonó-Delahoz & Dib-Diazgranados (2013), and Jiménez González *et al.* (2017) for rural communities located in dry forest areas.

Additionally, the Pijao La Tatacoa community reported that 53% of the species used are cultivated plants, such as anamú (*Petiveria alliacea* L.), totumo (*C. kujete*), and matarratón (*Gliricidia sepium* (Jacq.) Kunth); 40% are wild plants, including abriojo (*Alternanthera caracasana* Kunth), cuji (*Neltuma juliflora* (Sw.) Raf.), and mosquero (*Croton pedicellatus* Kunth); and 7% are purchased plants, such as garlic (*Allium sativum* L.), onion (*Allium cepa* L.), cilantro cimarrón (*Eryngium foetidum* L.), horsetail (*Equisetum giganteum*), eucalyptus (*Eucalyptus camaldulensis* Dehnh), mint (*Mentha x piperita* L.), potato (*Solanum tuberosum* L.), and rue (*Ruta graveolens* L.).

The methods of obtaining medicinal species are similar to those reported by Mendoza et al. (2021), and Rosero-Toro et al. (2018), recognizing cultivated, wild, and purchased species. However, other management practices for the tropical dry forest agroecosystem have been reported, such as tolerated species (those not planted or dispersed), encouraged species (those dispersed, planted, or whose reproduction is favored by selecting individuals), and escaped (plants that, after being cultivated, become part of secondary or primary vegetation) species (Polindara & Sanabria, 2022).

Management practices in cultivated and wild areas will depend on the intensity generated by the group's cultural practices (González-Insuasti & Caballero, 2007), given the availability, quick access,

and low cost (Jaramillo et al., 2014; Rosero-Toro et al., 2021). Additionally, the versatility of medicinal uses that ethnoflora can have (Hart et al., 2017) is noteworthy. Therefore, the promotion and consumption of these plants by community members is beneficial as it stimulates the appropriation and consequent protection of the ecosystem (Cruz et al., 2013).

Regarding preparation methods, the Pijao La Tatacoa community identified six methods of preparation (Table No. 3), with cooking being the most cited by the community with 68 mentions, followed by infusion (15), vaporization (4), extract (3), crushed (2), and poultice (2). Additionally, the participating community mentioned that there are 22 plants that do not require prior preparation, such as aloe (*Aloe vera* (L.) Burm.f.), cholupa (*Passiflora maliformis* L.), and pelá (*Vachellia farnesiana* (L.) Wight & Arn.).

The preference for these methods has been previously reported for other communities in dry ecosystems (Scarpa, 2004; Cruz et al., 2009; Jiménez González et al., 2021) and varies according to the ailment and the plant (Orantes-García et al., 2018; Jiménez-Romero et al., 2019). The presented data align with those reported by Mendoza et al. (2021), for the Pijao community of Natagaima, with whom they culturally share ancestral knowledge of the Pijao people.

Table No. 3
Methods of preparing ethnomedicinal plants according to interviewees' definitions

Preparation Method	Description
Cooking	This method involves heating a plant structure until boiling, after which the beverage is consumed as hot as possible.
Infusion	In this method, the plant or part of it is immersed in previously boiled water. The plant is left in the water, and the beverage is consumed as hot as possible.
Vaporization	The preparation for this method involves inhaling the steam produced by cooking the plant or its parts.
Extract	This method involves a process of macerating the plant or part of it until the sap or juice is obtained.
Crushed	The plant is cut fresh and then added to cold or hot water depending on the ethnomedical treatment.
Poultice	The plant or part of it is macerated fresh and moistened with a little water. It is applied directly to the affected area with pressure.

Furthermore, the most used part in treatments are leaves (69 mentions) (Figure No. 4), where the selection of leaves in odd numbers (3, 5, 7) predominates, and they must be picked "from bottom to top" so that the disease leaves the body. The preference for this organ can be explained by the availability of the resource in the dry forest compared to other plant organs (Scarpa, 2004; Barrios-Paternina & Mercado-Gómez, 2014; Zambrano-Intriago *et al.*, 2015; Rosero-Toro *et al.*, 2018; Soria *et al.*, 2020)

and the phytochemical properties of this organ, with a higher concentration of active compounds (e.g., flavonoids, tannins, saponins, coumarins) (Carvajal *et al.*, 2009; Ochoa *et al.*, 2013; Jiménez González *et al.*, 2021). Additionally, Jiménez González *et al.* (2017) indicated that communities prefer the use of leaves, fruits, and aerial parts of plants as it allows for the long-term availability of the resource compared to using the root or the entire plant.

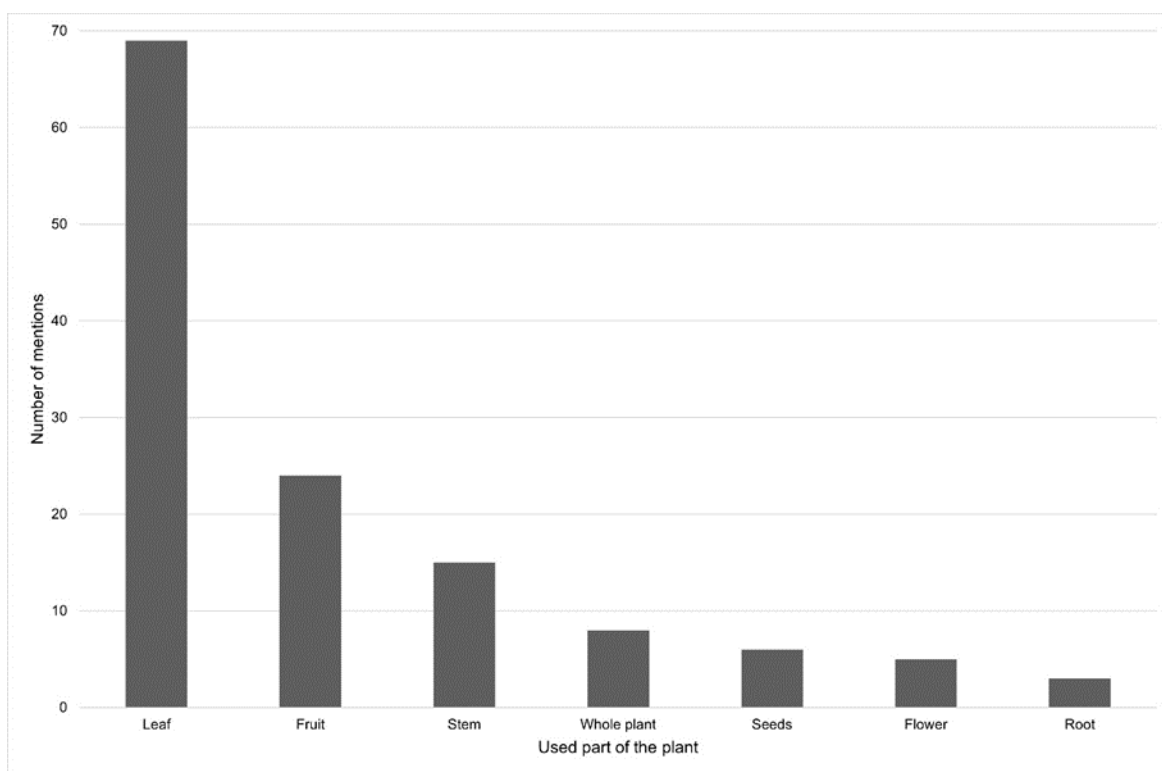


Figure No. 4

Shows the parts of the plants used for ethnomedical treatments in the Pijao La Tatacoa community

Regarding the species mentioned by disease category (Figure No. 5; Appendix No. 1), the digestive category had the highest number of species, with 47 (e.g., *A. vera*, *Mentha spicata* L., *Citrus × limon* (L.) Osbeck), followed by the dermatological category with 27 species (e.g., *C. pedicellatus*, *G. ulmifolia*, *Croton glabellus* L.). The lowest number of species was found in the lymphatic category, with 4

species (*Croton glabellus* L., *Morinda citrifolia* L., *Pimpinella anisum* L., *Psidium guajava* L.). These findings are similar to those reported for the Pijao of Natagaima (Mendoza *et al.*, 2021) and rural communities in Sucre, Colombia (Barrios-Paternina & Mercado-Gómez, 2014), as well as rural communities in northern Argentina (Scarpa, 2004), which are located in dry ecosystems.

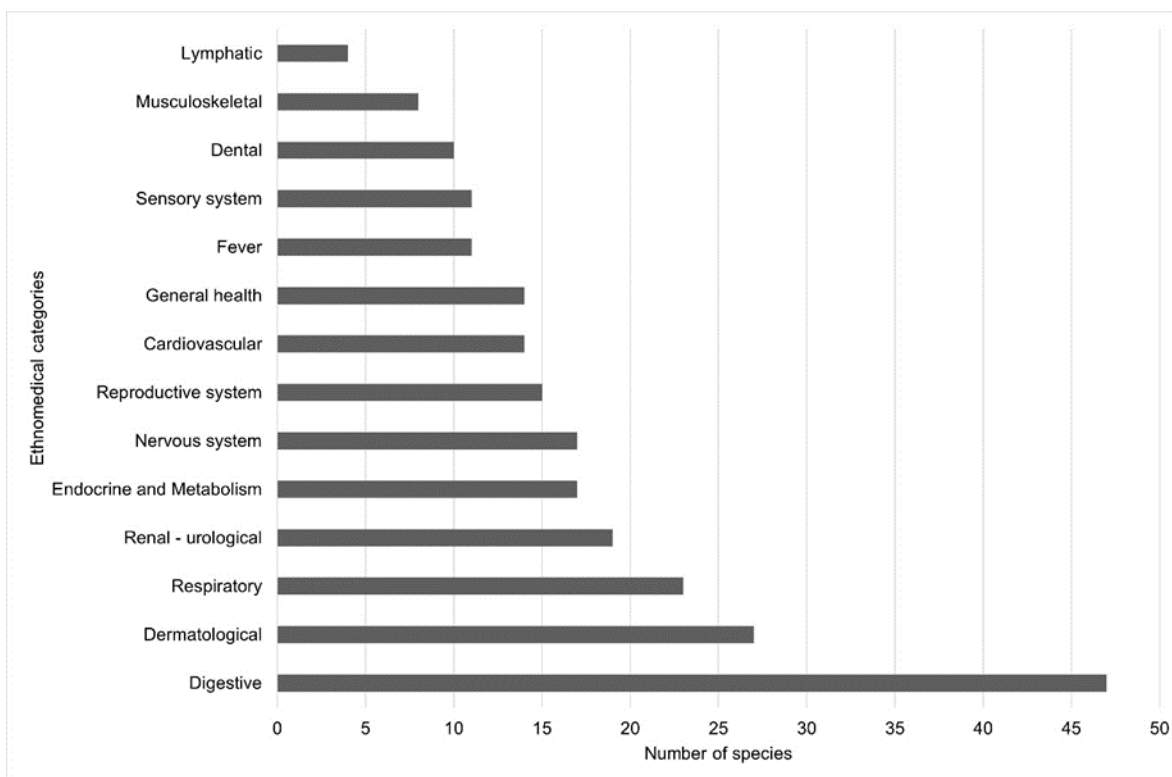


Figure No. 5
Medicinal species used by ethnomedical categories

Similarly, the information gathered is part of the traditional practices of the Pijao La Tatacoa Community to understand their territory and culture. The ethnomedical categorization is not homogeneous, so each community constitutes its own biocultural resource, which needs to be preserved (Polindara & Sanabria, 2022). This is especially true for indigenous communities, where medical treatment and immediate care through plants play an important role in tradition and cultural identity (Mayo *et al.*, 2024), as well as in the value of historical medicinal knowledge preserved by indigenous peoples (Polindara & Sanabria, 2022). Therefore, medicinal plants are one of the main motivations for communities to conserve the tropical dry forest (Rendón-Sandoval *et al.*, 2021).

Finally, the data on ethnomedical flora were published in the Information System on Biodiversity of Colombia, SiB (<https://doi.org/10.15472/b99twg>), and in the Global Biodiversity Information Facility (<https://www.gbif.org/dataset/58960762-6513-406b-a8d5-e525e9eb6e10>). With this, it is hoped to

contribute to the advancement of ethnobotany for the tropical dry forest and for the indigenous peoples who inhabit this ecosystem, considering that it is highly threatened and underprotected by the protected area designations in Colombia (Pizano & García, 2014). Additionally, there is little information on the cultural and ethnobotanical benefits of the tropical dry forest for the country (Barrios-Paternina & Mercado-Gómez, 2014; Rosero-Toro *et al.*, 2018; Polindara & Sanabria, 2022).

CONCLUSIONS

The first list of ethnomedical flora for the Pijao La Tatacoa Reserve was compiled through the process of co-constructing medicinal knowledge. This list serves as a foundational resource for the indigenous community, which has been developing participatory strategies to consolidate their species within life plans. Hence, the significance of the tropical dry forest agroecosystem for biocultural sovereignty is emphasized.

The Pijao La Tatacoa Indigenous Community prioritizes cultivated and wild ethnomedical species to sustain traditional medicine. Furthermore, the information gathered through the community's management will help prioritize the conservation of medicinal plants and preserve the transmission of ethnomedical knowledge among the community members. In this context, 107 medicinal species grouped into 14 ethnomedical categories were compiled, with 28 species categorized as being in some degree of threat. These figures may increase as more studies are conducted in the indigenous territory.

Similarly, more than 65 ethnomedical ailments were identified within the 14 categories, historically preserved through oral tradition. Considering that ethnomedical categorization is not homogeneous, this study is consolidated into a biocultural reference resource for the Pijao People and the indigenous communities present in areas of tropical dry forest. Additionally, the ethnobotanical list presented reflects species that are strongly rooted in traditional

medicine and address ailments or diseases that frequently occur in the Reserve, such as fever, stomach aches, colds, cuts, and sunburn, making these species the first choice for treating or preventing health issues.

Finally, this study has increased the botanical and ethnomedical knowledge of species in the tropical dry forest in Huila, consolidating reports in national and global biodiversity information systems. It is hoped that these figures will contribute to the understanding of the botanical and ethnomedical richness of the dry ecosystem.

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Appendix No. 1

List of medicinal species for the community Pijao La Tatacoa Indigenous Community (Huila, Colombia)

Common name: Spanish	Scientific name	Habit	Used part	Origin	Methods of preparation	Category of diseases	Ailments
Abrijo	<i>Alternanthera caracasana</i> Kunth (Amaranthaceae)	Herb	Whole plant	W	Cooking	Endocrine and Metabolism; Renal - urological; Respiratory	Diabetes; Cold; Kidney issues
Aguacate (avocado)	<i>Persea americana</i> Mill. (Lauraceae)	Tree	Leaf; Fruit	C	Cooking	Reproductive system	Contraceptive use
Ahuyama	<i>Cucurbita maxima</i> Duchesne (Cucurbitaceae)	Herb	Fruit	C	No prior preparation	Endocrine and Metabolism; Digestive; Dermatological	Diabetes; Deworming; Wound healing
Ajenjo	<i>Artemisia absinthium</i> L. (Asteraceae)	Herb	Leaf; Stem	C	Cooking	Cardiovascular	Heart conditions
Ají (pepper)	<i>Capsicum annuum</i> L. (Solanaceae) (SURCO: 12791)	Shrub	Fruit	C	No prior preparation	Dental	Toothache
Ajo (garlic)	<i>Allium sativum</i> L. (Amaryllidaceae)	Herb	Stem	P	No prior preparation	Digestive; Respiratory	Stomach pain; Cold; Deworming; Diarrhea, Covid-19
Albahaca (basil)	<i>Ocimum campechianum</i> Mill. (Lamiaceae) (SURCO: 12781)	Shrub	Leaf	C	Infusion	Digestive; Nervous system, Sensory system; Fever; Cardiovascular	Stomach pain; Nervousness; Vertigo; diarrhea; Fever; Blood pressure
Albahaca castilla	<i>Ocimum basilicum</i> L. (Lamiaceae) (SURCO: 12788)	Herb	Leaf	C	Cooking; Infusion	Nervous system, Reproductive system; Sensory system; General health	Nervousness; Menstrual pain; General discomfort; Eye irritation
Algarrobo	<i>Hymenaea courbaril</i> L. (Fabaceae)	Tree	Leaf	W	Cooking	Sensory system	Eye irritation
Almendrón	<i>Terminalia catappa</i> L. (Terminaliaceae)	Tree	Leaf	W	Cooking	Endocrine and Metabolism	Diabetes

Anamú	<i>Petiveria alliacea</i> L. (Petiveriaceae) (SURCO: 12787)	Herb	Whole plant	C	Cooking	General health; Dermatological; respiratory	Cancer; Wound healing; Acne; Sinucitis
Anís	<i>Pimpinella anisum</i> L. (Apiaceae)	Herb	Leaf; Seeds	C	Cooking	Lymphatic	Infectious diseases
Anón	<i>Annona squamosa</i> L. (Annonaceae) (SURCO: 12780)	Tree	Leaf; Fruit	C	Cooking	Digestive; Endocrine and Metabolism; Renal - urological; Reproductive system	Diabetes; Menstrual pain; Kidney issues; Ulcers
Arepo	<i>Opuntia elatior</i> Mill. (Cactaceae)	Herb	Leaf	W	No prior preparation	Digestive; General health	Indigestion; Heatstroke
Arroz (rice)	<i>Oryza sativa</i> L. (Poaceae)	Herb	Fruit	C	No prior preparation	General health	Dehydration
Barazón	<i>Casearia corymbosa</i> Kunth (Salicaceae)	Shrub	Leaf; Fruit	W	Cooking	Dental	Toothache
Barba de Chivo	<i>Lantana trifolia</i> L. (Verbenaceae)	Herb	Leaf	W	Cooking	Digestive	Stomach pain
Bejuco oloroso	<i>Entada polyphylla</i> Benth. (Fabaceae)	Shrub	Stem	W	No prior preparation	Dermatological	Alopecia
Brevo	<i>Ficus carica</i> L. (Moraceae)	Tree	Leaf	C	Cooking	Nervous system	Headaches
Cachaco	<i>Musa x paradisiaca</i> L. var. 'cachaco' (Musaceae)	Herb	Stem	C	No prior preparation	Dermatological	Wound healing
Cadillo	<i>Triumfetta semitriloba</i> Jacq. (Malvaceae) (SURCO: 12782)	Herb	Leaf	W	Cooking	Digestive; Renal - urological	Colon issues; Kidney issues; Urinary problems
Caguanejo	<i>Croton glabellus</i> L. (Euphorbiaceae)	Shrub	Leaf	W	Vaporization	Dermatological; Digestive; Lymphatic; Respiratory; Reproductive system	Dolor menstrual; Cold; Wound healing; Diarrhea; Covid-19; Tonsillitis
Caña (sugarcane)	<i>Saccharum officinarum</i> L. (Poaceae)	Herb	Leaf; Stem	C	No prior preparation	Renal - urological; Musculoskeletal	Kidney issues; Back pain

Caña Agria	<i>Gynerium sagittatum</i> (Aubl.) P. Beauv. (Poaceae)	Herb	Leaf; Stem	C	Cooking	Endocrine and Metabolism	Diabetes
Carare	<i>Aristolochia grandiflora</i> Sw. (Aristolochiaceae)	Shrub	Stem; Fruit	W	No prior preparation	Musculoskeletal	Rheumatism
Cargadita	<i>Grona adscendens</i> (Sw.) H. Ohashi & K. Ohashi (Fabaceae)	Herb	Leaf	W	Cooking	Renal - urological	Kidney issues
Cebolla cabezona (onion)	<i>Allium cepa</i> L. (Amaryllidaceae)	Herb	Stem	P	No prior preparation	Respiratory; Fever	Cold; Fever
Ceiba	<i>Ceiba pentandra</i> (L.) Gaertn. (Malvaceae)	Tree	Leaf	W	Cooking	General health	General discomfort
Chichato	<i>Muntingia calabura</i> L. (Muntingiaceae)	Tree	Leaf	W	Cooking	Dermatological	Chickenpox
Chipaca	<i>Bidens pilosa</i> L. (Asteraceae) (SURCO: 12778)	Herb	Leaf		Cooking	Digestive; Fever	Stomach pain; Fever
Chisacá	<i>Tridax procumbens</i> L. (Asteraceae)	Shrub	Leaf	W	Cooking	Fever; Dermatological	Fever; Abscesses
Cholupa	<i>Passiflora maliformis</i> L. (Passifloraceae)	Shrub	Leaf; Fruit	C	No prior preparation	Digestive	Stomach pain; Stomach hernia; Acidity; Hepatitis
Cilantro cimarrón	<i>Eryngium foetidum</i> L. (Apiaceae)	Herb	Leaf	P	Cooking	Digestive; Respiratory; Endocrine and Metabolism	Liver cleansing; Asthma; Cholesterol; Indigestion; Hepatitis
Ciruelo	<i>Spondias purpurea</i> L. (Anacardiaceae) (SURCO: 12777)	Tree	Leaf	W	Cooking	Digestive; Sensory system; Renal-urological	Stomach pain; Vertigo; Ulcers; Diarrhea; Urinary problems; Acidity
Coca	<i>Erythroxylum coca</i> Lam. (Eriytoxilaceae)	Shrub	Leaf; Seeds	C; W	No prior preparation	Digestive; Dental	Stomach pain; Diarrhea; Toothache
Coco	<i>Cocos nucifera</i> L. (Arecaceae)	Tree	Fruit	C	Extract	Digestive; Renal -	Ulcers; Kidney stones

						urological	
Cola de caballo	<i>Equisetum giganteum</i> L. (Equisetaceae)	Herb	Leaf; Stem	P	Cooking	Renal - urological	Kidney issues
Cruceto	<i>Randia aculeata</i> L. (Rubiaceae)	Shrub	Leaf	W	Cooking	Reproductive system	Menstrual pain
Cucuo	<i>Solanum</i> sp. (Solanaceae)	Shrub	Flower	W	Cooking	Respiratory	Cold
Cuji	<i>Neltuma juliflora</i> (Sw.) Raf. (Fabaceae) (SURCO: 12785)	Tree	Seeds	W	No prior preparation	Fever; sensory system	Fever; Eye irritation
Desinchadera	<i>Desmanthus virgatus</i> (L.) Willd. (Fabaceae) (SURCO: 12775)	Herb	Whole plant	W	Cooking	Digestive	Indigestion
Dinde	<i>Maclura tinctoria</i> (L.) D.Don ex Steud. (Moraceae)	Tree	Leaf	W	Cooking	Dental	Toothache
Diomate	<i>Astronium graveolens</i> Jacq. (Anacardiaceae)	Tree	Leaf	W	Cooking	Resperatory; Dental	Asthma; Toothache
Dormidera	<i>Mimosa pudica</i> L. (Fabaceae)	Herb	Whole plant	W	Cooking	Digestive; Dental	Indigestion; Toothache
Eucalipto (Eucalyptus)	<i>Eucalyptus camaldulensis</i> Dehnh. (Myrtaceae)	Tree	Leaf	P	Cooking; Vaporization	Respiratory	Cold
Granadilla	<i>Passiflora ligularis</i> Juss. (Passifloraceae)	Tree	Fruit	C	No prior preparation	Digestive	Diarrhea
Guaco	<i>Mikania guaco</i> Kunth (Asteraceae)	Herb	Leaf	W	Cooking	Digestive	Ulcers
Gualanday	<i>Jacaranda caucana</i> Pittier (Bignoniaceae)	Tree	Leaf	W	Cooking	Dermatological	Wound healing
Guanabana (soursop)	<i>Annona muricata</i> L. (Annonaceae)	Tree	Leaf	W	Cooking	Nervous system; Digestive	Headaches; Stomach pain; Indigestion
Guásimo	<i>Guazuma ulmifolia</i> Lam. (Malvaceae)	Tree	Stem	C	Cooking; Crushed	Digestive; Dermatological; Musculoskeletal ; Repodructive system; General health	Stomach pain; Colon issues; Ulcers; Alopecia; Weight loss; Labor pain;

							Knee pain
Guayabo (guava)	<i>Psidium guajava</i> L. (Myrtaceae) (SURCO: 12784)	Tree	Leaf; Fruit	C	Cooking	Endocrine and Metabolism; Lymphatic; Sensory system; Digestive	Diabetes; Immunity; Cholesterol; Vertigo; Diarrhea
Guineo	<i>Musa balbisiana</i> Colla var. 'guineo' (Musaceae)	Herb	Stem	C	No prior preparation	Endocrine and Metabolism, respiratory; Digestive	Diabetes; Cold; Ulcers; Diarrhea
Hoja santa - Malamadre	<i>Kalanchoe pinnata</i> (Lam.) Pers. (Crasulaceae) (SURCO: 12789)	Herb	Leaf	C	Infusion	Sensory system; Dental	Earache; Toothache
Jengibre	<i>Zingiber officinale</i> Roscoe (Zingiberaceae)	Herb	Stem	C	Cooking	Respiratory	Covid-19
La Pionia	<i>Rhynchosia phaseoloides</i> (Sw.) DC. (Fabaceae)	Shrub	Whole plant	W	Cooking	Cardiovascular; Nervous system	Heart conditions; Epilepsy
Limón (key lime)	<i>Citrus × limon</i> (L.) Osbeck (Rutaceae)	Shrub	Fruit; Seeds	C	Infusion; Vaporization	Nervous system; Cardiovascular; Dermatological; Endocrine and Metabolism dental; Digestive; Respiratory	Headaches; Stomach pain; Antioxidant; Cold; Cholesterol; Deworming; wound healing; Diarrhea; Covid-19; Toothache
Limón de cerca	<i>Swinglea glutinosa</i> Merr. (Rutaceae)	Tree	Fruit	C	Cooking	Musculoskeletal	Rheumatism
Limoncillo (lemongrass)	<i>Cymbopogon citratus</i> (DC.) Stapf (Poaceae)	Herb	Leaf; Seeds	C	Cooking; Infusion	Cardiovascular; Digestive; Endocrine and Metabolism; Nervous system; Respiratory; Sensory system	Stomach pain; Diabetes; Antioxidant; Nervousness; Vertigo; Covid-19; Blood pressure
Llantén (broadleaf plantain)	<i>Plantago major</i> L. (Plantaginaceae) (SURCO: 12792)	Herb	Leaf	C	Infusion	Digestive; Renal - urological; Reproductive system	Menstrual pain; indigestion; Liver cleansing;

							Kidney issues
Maiz (maize)	<i>Zea mays</i> L. (Poaceae)	Herb	Fruit	C	Cooking	Renal - urological	Kidney issues; Urinary problems
Mamoncillo	<i>Melicoccus bijugatus</i> Jacq. (Sapindaceae)	Tree	Leaf	C	Cooking	Cardiovascular; Digestive; Endocrine and Metabolism	Stomach pain; Diabetes; Blood pressure
Mandarina (tangerine)	<i>Citrus reticulata</i> Blanco (Rutaceae)	Tree	Fruit	C	Infusion	Cardiovascular; Digestive; Respiratory; Endocrine and Metabolism	Stomach pain; Diabetes; Cold; Blood pressure
Mango (mango)	<i>Mangifera indica</i> L. (Anacardiaceae)	Tree	Leaf	C	Cooking	Dermatological; Digestive	Indigestion; Wound healing; Bruises; Constipation
Marañón	<i>Anacardium occidentale</i> L. (Anacardiaceae)	Tree	Leaf; Fruit	C	Cooking	Endocrine and Metabolism	Diabetes
Mariguana	<i>Cannabis sativa</i> L. (Cannabaceae)	Shrub	Leaf	C		Digestive	Indigestion
Mastranto	<i>Mesosphaerum suaveolens</i> (L.) Kuntze (Lamiaceae) (SURCO: 12783)	Herb	Leaf	W	Cooking	Cardiovascular; Dermatological	Wound healing; Heart conditions; Chickenpox; Rash
Matarratón	<i>Gliricidia sepium</i> (Jacq.) Kunth (Fabaceae)	Tree	Leaf	C	Poultice	Nervous system; Digestive; Fever	Headaches; Indigestion; Fever
Menta	<i>Mentha x piperita</i> L. (Lamiaceae)	Herb	Leaf	P; C	Infusion	Digestive; Nervous system; Respiratory	Stomach pain; Nervousness; Cold
Mirto	<i>Murraya paniculata</i> (L.) Jack (Rutaceae)	Shrub	Leaf	C	No prior preparation	Nervous system; Dental	Headaches; Toothache
Moringa	<i>Moringa oleifera</i> Lam. (Moringaceae)	Tree	Leaf	C	Cooking; Crushed	Respiratory	Covid-19
Mosquero	<i>Croton pedicellatus</i> Kunth (Euphorbiaceae) (SURCO: 12790)	Shrub	Whole plant	W	Cooking	Dermatological; Dental; Digestive	Deworming; Wound Healing; Diarrhea; Toothache;

							Vitiligo; Fungi
Naranjo (bitter orange, sweet orange and pummelo)	<i>Citrus × sinensis</i> (L.) Osbeck (Rutaceae)	Tree	Fruit	C	Cooking; Infusion	Cardiovascular; Digestive; General health; Respiratory; Musculoskeletal	Stomach pain; Cold; General discomfort; Diarrhea heart conditions; Wind in the back or chest
Naranjo agrio	<i>Citrus × aurantiifolia</i> (Christm.) Swingle (Rutaceae)	Tree	Fruit	C	Cooking; Infusion	Digestive; Renal - urological	Colon issues; Fluid retention
Nim	<i>Azadirachta indica</i> A.Juss. (Meliaceae)	Tree	Leaf; Seeds	C	Cooking	Dermatological; Endocrine and Metabolism	Diabetes; Insect repellent; Abscesses
Noni	<i>Morinda citrifolia</i> L. (Rubiaceae) (SURCO: 12786)	Tree	Fruit	C	Cooking; Extract	Lymphatic; Musculoskeletal ; general health; Reproductive system	Immunity; sexual impotence; Cancer; Rheumatism
Oregano (oregano)	<i>Origanum vulgare</i> L. (Lamiaceae)	Herb	Leaf	C	Infusion	Endocrine and Metabolism; Renal - urological; Nervous system; Respiratory; sensory system	Headaches; Stomach pain; Diabetes; Earache; Cold; Kidney issues; Vertigo
Paico	<i>Dysphania ambrosioides</i> (L.) Mosyakin & Clemants (Amaranthaceae)	Herb	Leaf; Stem	W	Cooking	Digestive	Stomach pain; Deworming
Palameña	<i>Tradescantia pallida</i> (Rose) D.R.Hunt (Commelinaceae) (SURCO: 12779)	Herb	Leaf	C	Cooking	Digestive; Renal - urological; Fever	Liver cleansing; Ulcers; Fever; Urinary problems; Acidity
Palo de Cruz	<i>Brownea ariza</i> Benth. (Fabaceae)	Tree	Leaf; Flower	W	Cooking	Reproductive system	Menstrual bleeding
Papa (potato)	<i>Solanum tuberosum</i> L. (Solanaceae)	Herb	Root	P	No prior preparation	Dermatological; Fever	Bruises; Fever

Papaya (papaya)	<i>Carica papaya</i> L. (Caricaceae)	Herb	Leaf; Flower ; Fruit	C	Cooking	Dermatological; Digestive; General health	Indigestion; Deworming; Wound healing; Mastitis; Constipation
Pelá	<i>Vachellia farnesiana</i> (L.) Wight & Arn. (Fabaceae)	Shrub	Flower ; Root	W	Cooking	Cardiovascular; Digestive; Musculoskeletal ; Nervous system; Respiratory; Fever	Headaches; Cold; Fever; Covid-19; Rheumatism; Anemia
Penicilina	<i>Iresine</i> sp.	Shrub	Leaf	W	Cooking	Dermatological; General health	General discomfort; Wound healing; Acne
Piñon	<i>Jatropha curcas</i> L. (Euphorbiaceae)	Shrub	Fruit	W	Cooking	Digestive	Constipation
Plátano (banana)	<i>Musa balbisiana</i> Colla (Musaceae)	Herb	Stem	C	No prior preparation	Dermatological; Respiratory	Cold; Wound healing
Pringamosa	<i>Cnidoscolus urens</i> (L.) Arthur (Euphorbiaceae)	Shrub	Flower ; Stem	W	Cooking	Cardiovascular; Dermatological; Respiratory	Cold; Bruises; Circulation issues
Pronto alivio (bushy matgrass)	<i>Lippia alba</i> (Mill.) N.E.Br. ex Britton & P.Wilson (Verbenaceae)	Herb	Leaf	C	Infusion	Cardiovascular; Digestive; Nervous system; General health; Reproductive system	Stomach pain; Nervousness; Menstrual pain; General discomfort; Heart conditions
Riñonera - Palma de San Joaquín	<i>Dracaena angustifolia</i> (Medik.) Roxb. (Asparagaceae)	Herb	Leaf	C	Cooking	Renal - urological	Kidney issues
Ruda (common rue)	<i>Ruta graveolens</i> L. (Rutaceae)	Herb	Leaf	P	Cooking	Cardiovascular; Digestive; Reproductive system	Menstrual pain; Ulcers; Heart conditions

Sábila (aloe)	<i>Aloe vera</i> (L.) Burm.f. (Asphodelaceae)	Herb	Leaf	C	No prior preparation	Dermatological; Digestive; Endocrine and Metabolism; Renal - urological; Respiratory; Nervous system	Headaches; Stomach pain; Diabetes; Colon issues; Cold; Kidney issues; ulcers; Deworming; Insect repellent; Alopecia; Facial care; Burns; Constipation
Sana lo todo	<i>Palicourea</i> sp. (Rubiaceae)	Shrub	Leaf	W	Cooking	Dermatological	General discomfort; wound healing
Sangre de cristo	<i>Columnnea</i> sp. (Gesneriaceae)	Tree	Leaf	W	Cooking	Endocrine and Metabolism	Diabetes
Sasafrás - Zazafrá	<i>Bursera tomentosa</i> Triana & Planch. Burseraceae	Tree	Leaf	W	Vaporization	Nervous system; Dermatological; Respiratory	Headaches; Cold; Insect repellent; Sinusitis
Sause blanco	<i>Tessaria integrifolia</i> Ruiz & Pav. (Asteraceae)	Herb	Leaf	W	Poultice	Dermatological	Insect repellent
Suelda con suelda	<i>Elephantopus mollis</i> Kunth (Asteraceae)	Herb	Leaf	W	No prior preparation	Musculoskeletal ; Sensory system; Reproductive system	Irritación ocular; mastitis; Bone healing
Tabaco	<i>Nicotiana tabacum</i> L. (Solanaceae)	Herb	Leaf	C	No prior preparation	Dermatological	Insect repellent
Tomate (tomato)	<i>Solanum lycopersicum</i> L. (Solanaceae)	Herb	Fruit	C	No prior preparation	Digestive	Vomitings
Tomillo (thyme)	<i>Thymus vulgaris</i> L. (Lamiaceae)	Herb	Whole plant	C	Cooking	Renal - urological	Urinary problems
Toronjil (melissa)	<i>Melissa officinalis</i> L. (Lamiaceae)	Herb	Leaf	C	Infusion	Nervous system; General health	Nervousness; General discomfort
Totumo (calabash tree)	<i>Crescentia cujete</i> L. (Bignoniaceae)	Tree	Fruit	C	Cooking; Extract	Dermatological; Digestive; General health; Respiratory	Colon issues; Cold; cancer; alopecia; burns
Vejigon	<i>Physalis peruviana</i> L.	Shrub	Leaf	W	Cooking	Dermatological; Renal -	Urinary problems;

	(Solanaceae)					urological	Rash
Verbena (seashore vervain)	<i>Verbena litoralis</i> Kunth (Verbenaceae)	Herb	Leaf	W	Cooking	Fever	Fever
Verdolaga (common purslane)	<i>Portulaca oleracea</i> L. (Portulacaceae)	Herb	Whole plant	C	Cooking	Digestive; Renal - urological; Fever	Colon issues; Liver cleansing; Ulcers; Fever; Urinary problems
Violeta	<i>Viola odorata</i> L. (Violaceae)	Herb	Leaf	C	Infusion	Reproductive system	Menstrual pain
Yarumo (trumpet tree)	<i>Cecropia peltata</i> L. (Urticaceae)	Tree	Leaf; Fruit	W	Cooking	Reproductive system	Prostate issues
Yerbabuena (spearmint)	<i>Mentha spicata</i> L. (Lamiaceae)	Herb	Leaf	C	Infusion	Cardiovascular; Digestive; Renal - urological; Nervous system; General health; Reproductive system; Sensory system	Stomach pain; Nervousness; Menstrual pain; Earache; menstrual pain; General discomfort; Diarrhea; Urinary problems; Blood pressure; Fluid retention; Deworming; Insomnia
Yuca (cassava)	<i>Manihot esculenta</i> Crantz (Euphorbiaceae)	Herb	Root	C	Cooking	Dermatological; Digestive	Diarrhea; Burns; Dermatitis