Ethnobotany of Indigenous Saraguros: Medicinal Plants Used by Community Healers “Hampiyachakkuna” in the San Lucas Parish, Southern Ecuador

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1. Introduction

The Saraguros are one of the Kichwa indigenous communities of Ecuador. Although their origin is uncertain, they are considered to have been forced by the Incas to reach Ecuador from far away. A commonly accepted theory on how they reached south Ecuador is as a result of an “ethnic mobilization,” a common practice established by the great Inca Tupac Yupanqui. This strategy was used in order to secure the peace inside the Empire. As such, and according to Uhle [1], a small group of Paltas, the autochthonous inhabitants of the Loja region in south Ecuador, were transferred to Bolivia; and at the same time, a certain number of inhabitants of the Bolivian Highland Plateau were relocated in south Ecuador [2]. Nowadays, the Saraguros are normally settled in communitarian land in the southern Ecuador provinces of Loja and Zamora Chinchipe. In the canton of Loja, the Saraguros live in the San Lucas Parish, where this research was conducted.

The Saraguros are one of the best-organized ethnic groups in Ecuador and have conserve many aspects of their ancient culture and traditions for centuries. They demonstrate the latter by preserving their typical dressing, language, religion, gastronomy, architecture, social habits, and medical practices [3]. Among their medical practice traditions, this ethnic group is known for the use of medicinal plants in their own health care system. In fact, the use of these plants as therapeutic agents is an important feature of traditional indigenous medicine and is still practiced within the Saraguro community [4]. In particular, the Saraguros are highly recognized for the development of optimization techniques that help them select natural/plant resources to be used in their health care practices [5].

The community of healers locally known as “Hampiyachakkuna” maintains the ancient medical treatments of the Saraguros. The “Yachak” or “Hampi yachakkuna” is the person who knows the curative properties of plants, animals, and/or minerals. Under the Andean cosmovision of the Saraguro ethnic group, the diseases they treat are thought to be produced by either cold or heat [6]. As such, their natural medicines are classified as hot and fresh [7]; and depending on the nature of the patient's condition, different plants are selected for the treatment in accordance with this classification. However, although the knowledge regarding the usage of plants for medicinal practices has been transmitted orally from generation to generation [8], the Saraguros are experimenting cultural changes that threaten the preservation of their ancestral knowledge. These cultural changes lead to negative consequences such as the loss of traditional knowledge, a decline in the use of natural resources, and changes in the patterns of food intake, medical treatment, and, furthermore,
their cosmovision. For these reasons, there is an urgent need to document and preserve their invaluable knowledge [9].

In this sense, a number of ethnobotanical studies have been conducted in Ecuador. [10–16]. More recently, a series of important contributions to ethnobotanical research in the South of Ecuador have been published [17, 18]. For example, there are studies related to the use of wild fruits as alimentary supplements [19], the documentation of the herbaceous plants of Vilcabamba [20], and of medicinal plants used in the province of Loja [21]. In the latter, the existence of more than 200 medicinal plants was reported. In the Saraguro region, only few ethnobotanical studies have reported the usefulness of different natural plants in a variety of applications [22–24]. However, to date, a thorough documentation of the plants used as medicinal resources by the healers of the Saraguro ethno-medical group, which is the motivation for this investigation, has not been reported.

Because of the increasing recognition of the importance of the different medicinal species used by the Saraguros and in an effort to preserve their knowledge, in this work we seek to contribute to the conservation strategy on the sustainable uses of the Ecuadorian medicinal biodiversity. The latter is considered a fundamental step in order to raise awareness of its cultural value and the importance of its preservation. By doing that, we intended to safeguard the popular knowledge concerning natural medicinal plants and to provide a baseline for future actions regarding scientific research programs, environmental education, social awareness, and sustainable natural resources exploitation. As such, this study was conducted under a technical and scientific cooperation among the Universidad Técnica Particular de Loja (UTPL), the Dirección Provincial de Salud de Loja (DPSL), and the Saraguros Healers Council (Consejo de Sanadores de Saraguro) with the objective of recognizing and recovering the traditional knowledge of herbal medicinal resources used by the Saraguro community. The results of this research also aim at becoming a starting point to attract the attention of national and international tourists, in order to promote a self-sustaining development of the Saraguro community.

2. Methodology

This study was carried out in the San Lucas Parish in the south Ecuadorian province of Loja (Figure 1). San Lucas is limited to the north with the Saraguro Canton and the “Loma de Oro” mountain, to the south with the Jimbilla parish by the Bunque and Puruzhuma Rivers, to the east with the Loja-Zamora Chinchipe provincial limits and the Imbana Mountain, and to the west with the Santiago parish. San Lucas has an area of 15,900 ha and a population of approximately 4,296 inhabitants [12]. The dominant ecosystem in the zone is classified as lower montane-humid forest (hf-LM) according to Holdridge classification system. It is located at an average elevation of 2,525 m a.s.l and has an irregular topography. The study area has a temperate climate, with temperature ranging between 12 and 18°C along the year [12]. Annual precipitation amounts range between 600 and 1,000 mm yr⁻¹. The rainfall regime is semihumid with low seasonality.

![Figure 1: Geographical location of the San Lucas Parish, indicating the places of collection of medicinal species.](image-url)

This research was carried out during 11 field trips conducted during the period June–September 2010. During these field visits, interviews with four key informants (i.e., healers) from the Saraguro community regarding the medicinal plants they use in their practices and their applications were carried out. These healers were a midwife “Wachakhampiyachak,” a herbalist “Yurakhampiyachak,” a bone-healer “Kakuyhampiyachak,” and a visionary “Rikuyhampiyachak.” All of them are inhabitants of San Lucas community (Table 1) (Figure 2).

In the Saraguro community, the midwives (locally known as “parteras” or wachak in Kichwa) watch over the health of women in labor (“parturienta” in Spanish), prior, during, and after the child’s birth, as well as during the first years of the newborn’s life. They are mainly recognized for using medicinal plants normally grown in her own orchard, which facilitates their work. The herbalists (locally known as “herbateros”) treat diseases with symptomatology of organic type. These include headache, stomach ache, articulation pain, fever, and/or allergies. The “herbateros” mainly use medicinal resources collected in high-elevation mountainous areas. As such, differently from the “parteras,” they use larger amounts of herbal wild species during their practices. The bone-healers (locally known as “sobador”) is an empirical traumatologist who uses medicinal plants and the fat of different animals to treat the rupture of bones, sprains, and dislocations. The “visionario” (locally known as “Yachak”) are specialized in the diagnosis and treatment of diseases of supernatural nature (e.g., evil eye, fright (or “susto” in Spanish), but also the aforementioned diseases of organic nature. They are particularly recognized for their expertise in the preparation of psychoactive potions using hallucinogenic natural plants and depending of the Yachak expertise and knowledge the use of additional nonhallucinogenic plants that act as psychoactive additives. For example, on the use of wamingas and trenceillas (Huperzia spp.) for the preparation of the hallucinogenic cactus San Pedro (Echinopsis pachanoi) [11]. Although the practices of these community healers are...
Table 1: Places of collection of medicinal species used by community healer.

| Place of collection | Visionary | Herbalist | Midwife | Bone-healer |
|---------------------|-----------|-----------|---------|-------------|
| Acacana             | x         | x         | x       |             |
| Pichic              | x         | x         |         |             |
| Ingapirca           | x         |           |         |             |
| Ingura              |           |           |         |             |
| Aguarongo           | x         |           |         |             |
| Plan de Duco        | x         |           |         |             |

Figure 2: Community healers from San Lucas Parish: (a) midwife “Wachakhampiyachak” during an interview with one of the coauthors; (b) herbalist “Yurakhampiyachak”; (c) visionary “Rikuhampiyachak”; and (d) bone-healer “Kakuyhampiyachak.”

highly trusted and recognized as effective within the Saraguro community, when they detect serious conditions in the health of a patient, they immediately transfer the patient to a health center or hospital.

The informants were contacted through authorized representatives of the Department of Indigenous Health (Departamento de Salud Indígena) of the Loja City Health Direction. The informants were between 60 and 80 years old, with at least 25 years of experience in the use of medicinal plant species. The consent of each of the interviewed Saraguro healers was obtained before starting the study and reporting the results. Their knowledge of traditional medicine was inherited from ancestors and close relatives. The information collected during the interviews with the healers was related to...
the different uses, application forms, preparation, method/s of collection, parts, and spread of the different plants used by each of them as medicinal resources.

In addition, the medicinal plants species used by each of the healers within the San Lucas Parish were collected. The species were classified according to the Red Book of endemic plants of Ecuador [21] and the Catalogue of the Vascular Plants of Ecuador [25]. After their classification, the collected specimens were deposited in the herbarium of the Plant of Natural Products (Planta de Productos Naturales) of the Universidad Técnica Particular de Loja for future studies. The qualitative evaluation and quantitative information collected of all species were tabulated and analyzed with their vernacular names, occurrence, growing places, therapeutically applications, parts used, plants habit development, and forms of preparation as described by each informant. The scientific nomenclature was recorded according to the Catalogue of the Vascular Plants of Ecuador [25]. This research was conducted under permission of the Ministerio del Ambiente del Ecuador (MAE-N°001-IC-FLO-DBAP- VS- DRLZCH-MA). Additionally, voucher specimens were prepared and deposited in Herbarium of the Universidad Técnica Particular de Loja. Date of plant species, vernacular name, scientific name and family, medicinal use, parts used and modality of preparation, form of administration, and the species used for each “Hampi Yachak” are reported in Tables 4 to 7.

3. Results and Discussion

In this ethnobotanical survey, we identified 183 plants used by the community healers “Hampi yachakuna” of the Saraguro ethnic in the San Lucas Parish. These were grouped into: 68 families, 129 genera, and 179 species. The most representative families were Asteraceae (30 species); Lamiaceae (14 species), Arecaaceae (9 species), Solanaceae and Geraniaceae (8 species each), Amaryllidaceae and Brassicaceae (7 species each), and Piperaceae, Lycopodiaceae, and Ericaceae (6 species each). In relation to the treated diseases we found that 47 species are used for mythological treatments, 24 species for nervous system treatments, 13 species for cold treatments, 12 species for infection treatments, 9 species for general malaise treatments, and 8 species for inflammatory treatments of the liver and kidneys. These results are corroborated by the studies of [26–28]. As reported by [3, 5], as a result of their ancient Andean world view, supernatural and mythological diseases are the most commonly treated conditions by the Saraguro healers.

The type of species used by the healers, with exception of the midwives (“Wachakhampiyachak”) who use a large amount of self-cultivated species, are wild species (57.4%). These species are generally collected at high-elevation in the highlands surrounding the parish. About the vegetative organ of the plants used, we found that the highest proportion corresponds to the use of the whole plant (30.1%), followed by the branches (21.9%), flowers (18.6%), leaves (16.4%), bark (2.2%), seeds (1.1%), and tubers (0.6%). These results contrast with those documented by [29] in the San Lucas Parish, who reported that the most commonly used part of the plants are the leaves. With regard to the preparation of the medicinal treatment products, crushing of the plants or their parts was determined as the most commonly applied method to process the rough plant tissues (28.4%), because it allows for a more effective treatment of the diseases according to the key informants. This method is followed by boiling the plant tissues in water (27.9%), infusions (25.7%), and their direct use (18%) as has been previously reported by [28].

The interviewees did not know the form of reproduction of the majority of the species documented in the study (55.2%). From the ones they knew, 27.3% have an asexual reproduction and 17.5% have a sexual reproduction (Table 2). Only 29% of the total number of the registered species (53 species) have not been previously reported in scientific investigations of phytochemical character and their pharmacological activity. In contrast, 71% (130 species) have registered studies of pharmacological and phytochemical nature. Regarding the administration and/or application of medicinal preparations, five procedures were identified: oral administration (110 species), topical administration (45 species), administration during water baths (17 species), administration during rituals (locally known as "limpias") (9 species), and administration during steam baths (2 species).

Of the total screened plants, 55.2% are native, 37.2% are introduced, and 7.7% are endemic. Similar results have been reported in the past [20, 30]. From the 13 endemic species reported (Table 3), 2 species are used by the midwife, 3 species by the herbalist, 6 species by the visionary, and 2 species by the bone-healer. From the total number of species used by the healers, 96 are used by the visionary, 69 by the herbalist, 52 by the midwife, and 12 by the bones healer (Figure 3). It is important to mention that some of the species are used by more than one Yachak.

In relation to the type of plants used by the healers, the results show that 61.8% correspond to herbs (113 species), 25.7% correspond to shrubs (47 species), 7.1% correspond to trees (13 species), 3.8% correspond to lianas (7 species), and the rest correspond to two parasitic and one aquatic species [31] (Figure 4). From these, the species grown in the "páramo" (tropical alpine grassland ecosystem) belong to Huperzia and Lycopodium genera as was previously reported by [32]. Out of the total species registered, two of them (Bejaria resinosa and Huperzia) have been studied in detail, showing a high potential of the Saraguro flora as a source of novel secondary metabolites and biologically active plants extracts as has been previously reported [33–35]. Finally, a summary of the documented plant species used by the different healers that include information of their scientific name, way of preparation, and administration is reported in Tables 4–7.
Table 3: Endemic species reported.

| Common name            | Scientific name                        | Category          |
|------------------------|----------------------------------------|-------------------|
| Pena de cerro          | *Bejaria subsessilis* Benth.            | Vulnerable        |
| Suelda pequeña         | *Dendrophthora fastigiata* Kuijt.       | In danger         |
| Chuquir agua           | *Diplostephium oblanceolatum* S. F. Blake | Almost threatened |
| Sacha pena             | *Fuchsia hypoleuca* I. M. Johnst.       | In danger         |
| Wamaminga verde pequeño| *Huperzia austroecuadorica* B. Øllg.    | Vulnerable        |
| Shallshón              | *Lepechinia paniculata* (Kunth)         | Vulnerable        |
| Pena rojo de monte     | *Siphocampylus scandens* (Kunth). G. Don | Least preoccupation |
| Pegac chilca           | *Ageratina dendroides* (Spreng) R.      | Vulnerable        |
| Sarcillo sacha         | *Brachyotum scandens* (Bonpl.) Triana.  | Least preoccupation |
| Monte de baño          | *Diplostephium juniperinum* Cuatrec     | In danger         |
| Suelda grande          | *Phoradendron parietarioides* Trel.     | Not evaluated     |
| Sacha algodón          | *Achyrocline hallii* Hieron.            | Vulnerable        |
| Sp flor morado         | *Salvia leucocephala* Kunth             | Vulnerable        |

Figure 3: Number of species used by each community healer.

Figure 4: Number of species in relation to their habit.

4. Conclusions

In this study we collected, organized, and documented the natural plants used in traditional healing practices of the Saraguro community of the San Lucas Parish in south Ecuador. We achieved this according to the directions of the World Health Organization (OMS), which is one of the prioritized strategic research lines of the National Secretariat for Science and Technology of Ecuador (SENESCYT), that is, to strengthen and enhance the recovery of ancestral knowledge in coexistence with scientific knowledge. We documented the existence of 183 species used in 75 different curative therapies by four key community healers of the Saraguro ethnic group: a midwife, an herbalist, a bone-healer, and a visionary.

This research conducted in collaboration with the members of the native Saraguro community constitutes a baseline study to help promote the preservation of this ancient medicinal knowledge by a thorough documentation of the natural resources and processing methods used. Moreover, we hope the results of this study motivate young generations to envisage the potential of the use and application of traditional knowledge in medicinal practices. Finally, this scientific research and the results here reported aim at preserving and enhancing, as much as possible, a culture of the practice of natural ancient medicinal science, while preserving the environment, nature, life, culture, and sovereignty of the Saraguro people.
| Number | Scientific name                                                                 | Herbarium voucher | Medicinal use                                                                 | Preparation | Used part | Administration |
|--------|--------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------|-------------|-----------|----------------|
| 1      | *Cyclanthera pedata* (L.) Schrad. Cucurbitaceae                                  | PPN-cu-004        | Earache                                                                       | Heat        | Fruit     | Topic          |
| 2      | *Allium sativum* L. Liliaceae                                                   | PPN-li-001        | Cough                                                                         | Crushed     | Garlic    | Oral           |
| 3      | *Medicago sativa* L. Fabaceae                                                   | PPN-fa-017        | Circulatory problems in the blood system, particularly loss of sensation in the body extremities (e.g., hands, feet, and/or toes) | Liquefied   | Leaves    | Oral           |
| 4      | *Phytolacca americana* L. Phytolaccaceae                                        | PPN-ph-003        | Dandruff                                                                      | Crushed     | Fruit     | Topic          |
| 5      | *Nasturtium officinale* R. Br. Brassicaceae                                      | PPN-br-002        | Malaise of the body and headache                                             | Crushed     | Whole     | Oral           |
| 6      | *Nasturtium officinale* R. Br. Brassicaceae                                      | PPN-br-002        | Pneumonia                                                                      | Crushed     | Leaves    | Oral           |
| 7      | *Ageratum conyzoides* L. Asteraceae                                             | PPN-as-037        | Gangrene and infection                                                        | Crushed     | Whole plant | Oral           |
| 8      | *Prunus serotina* Ehrh. Rosaceae                                                | PPN-ro-010        | Postpartum bath and bone pain.                                               | Cooked      | Leaves    | Bath           |
| 9      | *Cedrela montana* Moritz ex Turcz. Meliaceae                                     | PPN-ml-004        | Postpartum bath and bone pain.                                               | Cooked      | Leaves    | Bath           |
| 10     | *Aloysia triphylla* (L’Hér.) Britton, Verbenaceae                               | PPN-ve-002        | Colds and colic                                                                | Infusion    | Leaves    | Oral           |
| 11     | *Lepidium sp.* Brassicaceae                                                      | PPN-br-008        | Fever or cold caused by cold air or strong winds (locally known as “mal aire”, i.e., “bad air” in Spanish) | Crushed     | Whole plant | Oral           |
| 12     | *Oxalis peduncularis* Kunth. Oxalidaceae                                         | PPN-ox-002        | Infection of the throat                                                        | Crushed     | Whole plant | Topic          |
| 13     | *Oxalis spiralis* Ruiz & Pav. Oxalidaceae                                        | PPN-ox-003        | Infection of the throat                                                        | Crushed     | Whole     | Topic          |
| 14     | *Dianthus caryophyllus* Caryophyllaceae                                          | PPN-cd-001        | Stomach pain                                                                   | Infusion    | Flowers   | Oral           |
| 15     | *Brassica oleracea* L. Brassicaceae                                              | PPN-br-007        | Inflammation of the liver and kidneys                                          | Crushed     | Stems     | Oral           |
| 16     | *Equisetum bogotense* Equisetaceae                                               | PPN-eq-001        | Inflammation of the liver                                                      | Cooked      | Whole plant | Oral           |
| 17     | *Oreocalis grandiflora* (Lam.) R. Br. Proteaceae                                 | PPN-ti-001        | Inflammation of the liver and kidneys                                          | Cooked      | Flowers   | Oral           |
| 18     | *Coriandrum sativum* L. Apiaceae                                                 | PPN-ap-010        | Menstrual related abdominal pain                                               | Infusion    | Whole plant | Oral           |
| 19     | *Tibouchina laxa* (Desr.) Cogn. Melastomataceae                                  | PPN-me-003        | Infection of the eyes in guinea pig (has not been applied in humans)          | Crushed     | Flowers   | Ocular application |
| Number | Scientific name | Herbarium voucher | Medicinal use | Preparation | Used part | Administration |
|--------|-----------------|------------------|---------------|-------------|-----------|----------------|
| 20     | *Iresine herbsta* Hook. Amaranthaceae | PPN-am-001 | Infection intestinal, injuries, liver and kidney | Crushed | Stems | Oral |
| 21     | *Epidendrum cochlidium* Lindl. Orchidaceae | PPN-or-006 | Nerves | Infusion | Flowers | Oral |
| 22     | *Passiflora ligularis* Juss. Passifloraceae | PPN-pa-001 | Diarrhea in children of 1 to 6 months of age | Warmed | Leaves | Topic |
| 23     | *Rumex tolimensis* Wedd. Polygonaceae | PPN-pl-005 | Growing hair and dandruff control | Crushed | Stems | Topic (wash hair) |
| 24     | *Myrcianthes rhopaloides* (Kunth). Myrtaceae | PPN-my-001 | Cold | Artisan | Stems | It is used in agriculture |
| 25     | *Paepalanthus ensifolius* Mart. Eriocaulaceae | PPN-el-002 | Nerves | Water stored | Leaves | Oral |
| 26     | *Macleania rupestris* (Kunth) A. C. Ericaceae | PPN-as-051 | Diarrhea in children of 1 to 6 months of age | Wormed | Leaves | Topic |
| 27     | *Drimys granadensis* L. f. Winteraceae | PPN-wn-001 | Reduces diarrhea and general malaise | Juice or food directly | Fruit | Oral |
| 28     | *Zea mays* L. Poaceae | PPN-po-001 | Reduces diarrhea and general malaise | Infusion | Hair of Z. mays dry | Oral |
| 29     | *Salvia scutellaroides* K. Lamiaceae | PPN-la-014 | Infection of wounds | Cooked | Leaves | Wash the affected site |
| 30     | *Mentha spicata* Lamiaceae | PPN-la-027 | Colic stomach and cold | Cooked | Leaves | Oral |
| 31     | *Myrica pubescens* Humb. & Bonpl. Myricaceae | PPN-mr-001 | Fever or cold caused by cold air or strong winds (locally known as "mal aire", i.e., "bad air" in Spanish) | Crushed | Leaves | Topical and oral |
| 32     | *Clematis haenkeana* C. Pres. Ranunculaceae | PPN-ra-003 | Sore teeth | Crushed | Buds | Topic |
| 33     | *Rubus arcticifolius* Poir. Rosaceae | PPN-ro-005 | Gangrene | Crushed | Buds and/flowers | Oral |
| 34     | *Gaultheria erecta* Vent. Eriaceae | PPN-er-008 | Physical exhaustion | Eats | Fruit | Oral |
| 35     | *Bidens andicola* Kunth. Asteraceae | PPN-as-005 | Diminish fall back into illness after recovery (locally known as "recaida") | Crushed | Whole plant | Oral |
| 36     | *Juglans neotropica* Diles. Juglandaceae | PPN-ju-001 | Postpartum bath | Cooked | Leaves | Bath |
| 37     | *Chenopodium ambrosioides* L. Chenopodiaceae | PPN-ch-001 | Gallbladder stones | Cooked | Whole plant | Oral |
| Number | Scientific name | Herbarium voucher | Medicinal use | Preparation | Used part | Administration |
|--------|-----------------|------------------|---------------|-------------|-----------|----------------|
| 40     | Viola dombeyana DC. Violaceae | PPN-vi-004 | Nerves | Infusion | Flowers | Oral |
| 41     | Fuchsia hybrida hort. ex Siebert & Voss. Onagraceae | PPN-on-005 | Nerves | Infusion | Flowers | Oral |
| 42     | Viola arguta Willd. ex Roem. & Schult. Violaceae | PPN-vi-002 | Nerves | Infusion | Flowers | Oral |
| 43     | Siphocampylus scandens (Kunth) G. Campanulaceae | PPN-cp-001 | Nerves | Infusion | Flowers | Oral |
| 44     | Petroselinum crispum (Mill.) Apiaceae | PPN-ap-003 | Nerves | Crushed | Whole plant | Oral |
| 45     | Disterigma alaternoides (Kunth) Ericaceae | PPN-er-006 | Physical exhaustion | Eats | Fruit | Oral |
| 46     | Poterium sanguisorba L. Rosaceae | PPN-ro-008 | Nerves | Crushed | Whole plant | Oral |
| 47     | Myrteola phylloides (Benth.) Myrtaceae | PPN-la-024 | Menstrual related abdominal pain and cold | Infusion | Whole plant | Oral |
| 48     | Clinopodium taxifolium (Kunth) Lamiaceae | PPN-la-002 | Fever or cold caused by cold air or strong winds (locally known as “malaire”, i.e., “bad air” in Spanish) | It is used directly | Leaves | Topic |
| 49     | Clinopodium sp. Lamiaceae | PPN-la-024 | Fever or cold caused by cold air or strong winds (locally known as “malaire”, i.e., “bad air” in Spanish) | It is used directly | Leaves | Topic |
| 50     | Achyrocline hallii Hieron. Asteraceae | PPN-as-058 | Injuries | Place in the affected site | Leaves | Topic |
| 51     | Fuchsia hypoleuca I. M. Johnst. Onagraceae | PPN-on-009 | Nerves | Infusion | Flowers | Oral |
| 52     | Cleome longifolia C. Pres. Capparaceae | PPN-ck-001 | Rheumatism | Crushed | Leaves | Topic |
| 53     | Cestrum sendinerianum Mart. Solanaceae | PPN-so-003 | Fever, headache and relapse | Infusion | Leaves | Oral |
| 54     | Cestrum sp. Solanaceae | PPN-so-004 | Fever, headache and relapse | Infusion | Leaves | Oral |
| 55     | Bidens pilosa L. Asteraceae | PPN-as-002 | Diminish fall back into illness after recovery (locally known as “recaída”) | Crushed | Whole plant | Oral |
| 56     | Pontederia sp. Pontederiaceae | PPN-pk-001 | Sore teeth | Chew | Leaves | Topic |
| 57     | Macrocarpaea lenae J. R. Grant Gentianaceae | PPN-gn-003 | Fever or cold caused by cold air or strong winds (locally known as “malaire”, i.e., “bad air” in Spanish) | Clean | Leaves | Topic |
| 58     | Piper ecuadorense Sodiro. Piperaceae | PPN-pl-007 | Fever or cold caused by cold air or strong winds (locally known as “malaire”, i.e., “bad air” in Spanish) | Clean | Leaves | Topic |
| 59     | Cyphomandra betacea (Cav.) Solanaceae | PPN-so-014 | Infection of the throat | Cooked | Fruit | Oral |
| Number | Scientific name | Herbarium voucher | Medicinal use | Preparation | Used part | Administration |
|--------|----------------|-------------------|---------------|-------------|-----------|---------------|
| 60     | Carica pubescens Lenné & C. Koch. Caricaceae | PPN-cc-003 | Nerves and diarrhea | Cooked | Fruit | Oral |
| 61     | Melissa officinalis L. Lamiaceae | PPN-la-004 | Nerves | Crushed | Whole plant | Oral |
| 62     | Physalis peruviana L. Solanaceae | PPN-so-013 | Cholesterol | Juices | Fruit | Oral |
| 63     | Gaiadendron punctatum (Ruiz & Pav.) Loranthaceae | PPN-lo-001 | Strong cough | Infusion | Flowers | Oral |
| 64     | Otholobium mexicanum (L. f.) J. W. Fabaceae | PPN-fa-005 | Diarrhea | Infusion or cooking | Flowers | Oral |
| 65     | Cavendishia bracteata (Ruiz & Pav.) Ericaceae | PPN-er-003 | Feed | Eats | Fruit | Oral |
| 66     | Arracacia xanthorrhiza Bancr. Apiaceae | PPN-ap-001 | Elimination of the placenta in cattle | Cooked | Leaves | Oral |
| 67     | Cucurbita maxima Dúchense. Cucurbitaceae | PPN-cu-005 | Diarrhea in children of 1 to 6 months of age | Warmed in the hands | Leaves | Topic |

* Plants used in mythological cases.
Table 5: Ethnopharmacological report of medicinal plants used by visionary “Rikuyhampiyachak.”

| Number | Scientific name                  | Herbarium voucher | Medicinal use                                           | Preparation | Used part | Administration |
|--------|----------------------------------|-------------------|--------------------------------------------------------|-------------|-----------|----------------|
| 1      | *Cyclanthera pedata* (*L.*) Schrad. Cucurbitaceae | PPN-cu-004        | Diminish fall back into illness after recovery (locally known as “recaída”) | Crushed     | Flowers   | Oral           |
| 2      | *Scirpus sp.* Scirpus sp. Cyperaceae | PPN-cy-004        | Child restless and confused, and postpartum bath       | Cooked      | Whole plant | Bath           |
| 3      | *Alnus acuminata* Kunth. Betulaceae | PPN-be-001        | Headache                                               | Heated      | Leaves    | Topic          |
| 4      | *Amaranthus cruentus L.* Amaranthaceae | PPN-am-002        | Menstrual related abdominal pain                       | Cooked      | Leaves    | Oral           |
| 5      | *Nasturtium officinale* R. Br. Brassicaceae | PPN-br-002        | Diminish fall back into illness after recovery (locally known as “recaída”) and cough | Crushed     | Whole plant | Oral           |
| 6      | *Borago officinalis* L. Boraginaceae | PPN-bo-001        | Infusion                                               | Flowers     | Oral      |
| 7      | *Triumfetta althaeoides* Lam. Tiliaceae | PPN-ti-001        | Inflammation of the liver and kidneys                  | Infusion    | Leaves    | Oral           |
| 8      | *Salvia scutellariorum* Kunth. Lamiaceae | PPN-la-014        | Water of air*                                          | Crushed     | Flowers   | Oral           |
| 9      | *Ageratum conyzoides* L. Asteraceae | PPN-as-031        | Gangrene and infection                                 | Crushed     | Whole plant | Oral           |
| 10     | *Centaurium erythraeum* Rafn. Gentianaceae | PPN-gn-001        | Malaise of the body                                    | Infusion    | Flowers   | Oral           |
| 11     | *Sonchus oleraceus* L. Asteraceae | PPN-as-037        | Malaise of the body                                    | Infusion    | Whole plant | Oral           |
| 12     | *Lepidium sp.* Brassicaceae        | PPN-br-008        | Diminish fall back into illness after recovery (locally known as “recaída”) | Crushed     | Whole plant | Oral           |
| 13     | *Cotula australis* (Sieber ex Spreng.) Hook. f. Asteraceae | PPN-as-054        | Diminish fall back into illness after recovery (locally known as “recaída”) | Crushed     | Whole plant | Oral           |
| 14     | *Lepidium chichicara* Desv. Brassicaceae | PPN-br-004        | Diminish fall back into illness after recovery (locally known as “recaída”) | Crushed     | Whole plant | Oral           |
| 15     | *Tagetes terniflora* Kunth, Nov. Asteraceae | PPN-as-006        | Fever or cold caused by cold air or strong winds (locally known as “mal aire”, i.e., “bad air” in Spanish) | It is used directly | Leaves    | Topic          |
| 16     | *Urtica urens* L. Urticaceae       | PPN-ur-004        | Intestinal Infection                                   | Infusion    | Whole plant | Oral           |
| 17     | *Oxalis peduncularis* Kunth. Oxalidaceae | PPN-ox-002        | Infection of the throat                                | Crushed     | Whole plant | Topic          |
| 18     | *Diplostephium oblancoelatum* S. F. Blake Asteraceae | PPN-as-045        | Malaise of the body                                    | Cooked      | Leaves    | Oral           |
| 19     | *Cupressus lasianica* Mill. Cupressaceae | PPN-cp-001        | Control baldness                                       | Macerate    | Fruit     | Topic          |
| Number | Scientific name | Herbarium voucher | Medicinal use | Preparation | Used part | Administration |
|--------|----------------|------------------|---------------|-------------|-----------|----------------|
| 20     | Dianthus caryophyllus | PPN-cd-001       | Stomach pain  | Infusion    | Flowers   | Oral           |
| 21     | Brassica oleracea L. | PPN-br-007       | Infection liver and kidneys | Crushed | Stems | Oral           |
| 22     | Equisetum bogotense Kunth. | PPN-eq-001 | Inflammation of the liver | Cooked | Whole plant | Oral           |
| 23     | Peperomia peltigera C. DC. | PPN-pi-010 | Headache | Warm Fire | Fruit | Inhalation |
| 24     | Peperomia galoides Kunth. | PPN-pi-004 | Water of air* | Crushed | Whole plant | Oral           |
| 25     | Baccharis oblongifolia (Ruiz & Pav.) Pers. Asteraceae | PPN-as-047 | Child restless and confused, postpartum bath | Cooked | Branches | Bath           |
| 26     | Oreocallis grandiflora (Lam.) R. Br. Proteaceae | PPN-pr-001 | Inflammation of the liver | Infusion | Flowers | Oral           |
| 27     | Niphogoton dissecta (Benth.) J. F. Macbr Apiaceae | PPN-ap-010 | Cold | Cooked | Whole plant | Oral           |
| 28     | Apium leptophyllum L. Apiaceae | PPN-ap-006 | Cold | Cooked | Whole plant | Oral           |
| 29     | Adiantum poriei Wikstr. Pteridaceae | PPN-pt-001 | Cooked | Cold | Whole plant | Oral           |
| 30     | Iresine herbstii Hook. Amaranthaceae | PPN-am-001 | Infection: intestinal, liver and kidneys | Cooked | Whole plant | Oral           |
| 31     | Eucalyptus globulus Labill. Myrtaceae | PPN-my-007 | Fever or cold caused by cold air or strong winds (locally known as "mal aire", i.e., "bad air" in Spanish) | Directly | Branches | Topic           |
| 32     | Epidendrum fimbriatum Kunth. Orchidaceae | PPN-or-001 | For internal tumors | Crushed | Flowers | Oral           |
| 33     | Rumex tolimensis Wedd. Polygonaceae | PPN-pl-005 | Dandruff | Crushed | Leaves | Topic           |
| 34     | Vicia faba L. Fabaceae | PPN-fa-016 | Headache | Boiled in the hands palms | Leaves | Topic           |
| 35     | HaIenia wedelliana Gilg. Gentianaceae | PPN-gn-002 | It helps maintain milk production in cattle | Cooked | Whole plant | Topic           |
| 36     | Marchantia polymorpha L. Amaranthaceae | PPN-am-008 | Malaise of the body | Crushed | Whole plant | Oral           |
| 37     | Tagetes erecta L. Asteraceae | PPN-as-056 | To bad energy* | Cooked | Branches | Bath           |
| 38     | Myrica parvifolia Benth. Myricaceae | PPN-as-019 | Water of air* | Crushed | Flowers | Oral           |
| 39     | Myrica parvifolia Benth. Myricaceae | PPN-mr-002 | Fever or cold caused by cold air or strong winds (locally known as "mal aire", i.e., "bad air" in Spanish) | Directly | Branches | Topic           |
| Number | Scientific name                       | Herbarium voucher | Medicinal use                                      | Preparation | Used part  | Administration |
|--------|--------------------------------------|-------------------|---------------------------------------------------|-------------|------------|----------------|
| 40     | *Gamochaeta americana* (Mill.) Wedd. Asteraceae | PPN-as-030        | cold                                              | Cooked      | Whole plant| Oral           |
| 41     | *Linum usitatissimum* L. Linaceae     | PPN-li-001        | Inflammation of liver and kidneys                 | Cooked      | Fruits     | Oral           |
| 42     | *Alcea rosea* L. Malvaceae            | PPN-ma-001        | Inflammation of liver and kidneys                 | Infusion    | Flowers    | Oral           |
| 43     | *Matricaria chamomilla* L. Asteraceae | PPN-as-016        | Fever or cold caused by cold air or strong winds  | Boiled      | Whole plant| Oral           |
| 44     | *Ambrosia artemisioides* Mill. Asteraceae | PPN-as-022        | Fever or cold caused by cold air or strong winds  | Directly    | Branches   | Topic          |
| 45     | *Piper aduncum* L. Piperaceae         | PPN-pi-016        | Infection of external wound                       | Cooked      | Flowers    | Oral           |
| 46     | *Diplostephium juniperinum* Cuatrec. Asteraceae | PPN-as-057        | Child restless and confused, and postpartum bath  | Cooked      | Branches   | Bath           |
| 47     | *Eriocaulon microcephalum* Kunth, Erioculaceae | PPN-el-001        | To luck good                                      | Macerate    | Whole plant| Inhalation     |
| 48     | *Rubus arcticolius* Poir. Rosaceae    | PPN-ro-005        | Gangrene                                          | Crushed     | Flowers    | Oral           |
| 49     | *Bidens andicola* Kunth. Asteraceae   | PPN-as-005        | Diminish fall back into illness after recovery    | Crushed     | Whole plant| Oral           |
| 50     | *Pediculris incurva* Benth. Scrophulariaceae | PPN-sc-004        | Diminish fall back into illness after recovery    | Crushed     | Whole plant| Oral           |
| 51     | *Lepidium chichicara* Desv. Brassicaceae | PPN-br-004        | Diminish fall back into illness after recovery    | Crushed     | Whole plant| Oral           |
| 52     | *Bejaria aequans* Mutis ex L. Ericaceae | PPN-er-001        | Menstrual related abdominal pain                  | Cooked      | Flowers    | Oral           |
| 53     | *Bejaria subsessilis* Benth. Ericaceae | PPN-er-007        | Nerves                                            | Cooked      | Flowers    | Oral           |
| 54     | *Fuchsia hybrid* Hort. ex Siebert & Voss. Onagraceae | PPN-on-005        | Nerves                                            | Cooked      | Flowers    | Oral           |
| 55     | *Poterium sanguisorba* L. Rosaceae    | PPN-ro-008        | Nerves                                            | Crushed     | Whole plant| Oral           |
| 56     | *Pinus radiata* D. Pinaceae           | PPN-pc-001        | Asthma                                            | Cooked      | Fruit      | Oral           |
| 57     | *Clinopodium sp.* Lamiaeceae          | PPN-la-024        | Cold                                              | Cooked      | Whole plant| Oral           |
| 58     | *Minthostachys mollis* (Kunth) Grises. Lamiaeceae | PPN-la-009        | Fever or cold caused by cold air or strong winds  | Directly    | Branches   | Topic          |
| 59     | *Chrysanthemum sp.* Asteraceae        | PPN-as-055        | Fever or cold caused by cold air or strong winds  | Crushed     | Leaves     | Oral           |
| Number | Scientific name | Herbarium voucher | Medicinal use | Preparation | Used part | Administration |
|--------|----------------|-----------------|---------------|-------------|-----------|----------------|
| 60     | Ceroxylon parvifrons (Engel) H. Wendl. | PPN-ak-001 | The aerial part is used as incense* | Burns | Leaves | Oral |
| 61     | Rosmarinus officinalis L. | PPN-la-010 | Fever or cold caused by cold air or strong winds (locally known as "mal aire", i.e., "bad air" in Spanish) | Crushed | Branches | Oral |
| 62     | Rosa centifolia L. | PPN-ro-001 | Nerves | Crushed | Flowers | Oral |
| 63     | Ruta graveolens L. | PPN-rt-001 | Headache, bad air* | Crushed | Branches | Oral |
| 64     | Solanum juglandifolium Dunal, Solan. | PPN-so-016 | Air water* | Crushed | Flowers | Oral |
| 65     | Echinopsis pachanoi (Britton & Rose) | PPN-cb-001 | Sorcery* | Cooked | Stems | Oral |
| 66     | Tanacetum parthenium (L.) Sch. Bip. | PPN-as-031 | Fright in children | Cooked | Whole plant | Oral |
| 67     | Brachyotum confertum (Bonpl.) Triana. Melastomataceae | PPN-me-004 | Allergies | Crushed and cook | Branches | Topic |
| 68     | Cestrum sendmerianum C. Martius. Solanaceae | PPN-so-003 | Fever, headache and relapse | Infusion | Leaves and flowers | Oral |
| 69     | Baccharis obtusifolia Kunth. Asteraceae | PPN-as-014 | Fever or cold caused by cold air or strong winds (locally known as "mal aire", i.e., "bad air" in Spanish) | Directly | Branches | Topic |
| 70     | Baccharis sp. Asteraceae | PPN-as-015 | Fever or cold caused by cold air or strong winds (locally known as "mal aire", i.e., "bad air" in Spanish) | Directly | Branches | Topic |
| 71     | Lepichinia paniculata (Kunth). Lamiaceae | PPN-la-011 | Fever or cold caused by cold air or strong winds (locally known as "mal aire", i.e., "bad air" in Spanish) | Directly | Branches | Topic |
| 72     | Bidens pilosa L. Asteraceae | PPN-as-002 | Diminish fall back into illness after recovery (locally known as "recaida") | Crushed | Flowers | Oral |
| 73     | Tagetes erecta L Asteraceae | PPN-as-019 | Air water* | Crushed | Flowers | Oral |
| 74     | Baccharis genistelloides (Lam.) Pers. Asteraceae | PPN-as-013 | Diabetes and cholesterol | Cooked | Branches | Oral |
| 75     | Piper barbatum Kunth. Piperaceae | PPN-pi-005 | Fever or cold caused by cold air or strong winds (locally known as "mal aire", i.e., "bad air" in Spanish) | Directly | Branches | Topic |
| 76     | Baccharis genistelloides (Lam.) Pers. Asteraceae | PPN-as-013 | Diabetes and cholesterol | Cooked | Branches | Oral |
| 77     | Iresine herbstii Hook. Amaranthaceae | PPN-am-001 | Flu and bad air* | Cooked | Whole plant | Oral |
| 78     | Clinopodium nubigenum (Kunth). Lamiaceae | PPN-la-018 | Cold | Infusion | Whole plant | Oral |
| 79     | Melissa officinalis L. Lamiaceae | PPN-la-004 | Nerves | Crushed | Branches | Oral |
| **Number** | **Scientific name** | **Herbarium voucher** | **Medicinal use** | **Preparation** | **Used part** | **Administration** |
|-----------|---------------------|-----------------------|-------------------|-----------------|----------------|-------------------|
| 80        | *Huperzia* sp.      | PPN-lc-007            | Child restless and confused, and postpartum bath | Cooked          | Branches       | Bath              |
| 81        | *Huperzia tetragona* (Hook. & Grev.) | PPN-lc-004          | Sorcery\*         | Macerate        | Whole plant    | Oral              |
| 82        | *Solanum oblongifolium* Dunal, Solan. Solanaceae | PPN-so-014         | Fever or cold caused by cold air or strong winds (locally known as "mal aire", i.e. "bad air" in Spanish) | Directly        | Branches        | Topic             |
| 83        | *Oritrophium peruvianum* (Lam.) Asteraceae | PPN-as-046          | Inflammation of the liver and kidneys | Cooked          | Whole plant    | Oral              |
| 84        | *Oritrophium peruvianum* (Lam.) Asteraceae | PPN-as-046          | Inflammation of the liver and kidneys | Cooked          | Whole plant    | Oral              |
| 85        | *Loricaria thyoides* (Lam.) Sch. Asteraceae | PPN-as-046          | Inflammation of the liver and kidneys | Cooked          | Whole plant    | Oral              |
| 86        | *Valeriana microphylla* Kunth. Valerianaceae | PPN-va-001          | Child restless and confused, bath and good energy\* | Cooked          | Branches       | Bath              |
| 87        | *Verbena litoralis* Kunth. Verbenaceae | PPN-ve-001          | Nerves            | Cooked          | Roots          | Oral              |
| 88        | *Huperzia* sp.      | PPN-lc-007            | Plague and headache | Crushed         | Flowers        | Oral              |
| 89        | *Lycopodium weberbaueri* (Nessel). Lycopodiaceae | PPN-lc-002          | Amulet for evil eye and sorcery\* | Macerate        | Whole plant    | Oral              |
| 90        | *Lycopodiun sellifolia* B. Øllg. Lycopodiaceae | PPN-lc-002          | Amulet for evil eye and sorcery\* | Macerate        | Whole plant    | Oral              |
| 91        | *Lycopodium weberbaueri* (Nessel). Lycopodiaceae | PPN-lc-005          | Amulet for evil eye and sorcery\* | Macerate        | Whole plant    | Oral              |
| 92        | *Huperzia austrocruedorica* B. Øllg. Lycopodiaceae | PPN-lc-006          | Amulet for evil eye and sorcery\* | Macerate        | Whole plant    | Oral              |
| 93        | *Brugmansia X candida* Pers. Solanaceae | PPN-so-015          | Fever or cold caused by cold air or strong winds (locally known as "mal aire", i.e. "bad air" in Spanish) | Directly        | Directly       | Topic             |
| 94        | *Daucus carota* L. Apiaceae | PPN-um-001          | Gastritis         | Juice           | Drops          | Oral              |

\*Plants used in mythological cases.
Table 6: Ethnopharmacological reports of medicinal species used by a bone healer “Kaluyhampiyachak.”

| Number | Scientific name                                      | Herbarium voucher | Medicinal use                                      | Preparation | Used part | Administration |
|--------|------------------------------------------------------|-------------------|---------------------------------------------------|-------------|-----------|----------------|
| 1      | *Persea americana* Mill. Lauraceae                  | PPN-lu-001        | Coups and hematomas                               | Scraped     | Seed      | Oral           |
| 2      | *Alnus acuminata* Kunth. Betulaceae                 | PPN-be-001        | Rupture of bones, sprains and dislocations        | Crushed     | Buds      | Topic          |
| 3      | *Urtica urens* L. Urticaceae                        | PPN-ur-004        | Blows                                             | Crushed     | Whole plant | Topic          |
| 4      | *Oreocalis grandiflora* (Lam.) R. Br. Proteaceae    | PPN-pr-001        | Twists and blows                                  | Crushed     | Fruit     | Topic          |
| 5      | *Solanum americanum* Mill. Solanaceae               | PPN-so-007        | Blows internal                                    | Cooked      | Leaves    | Oral           |
| 6      | *Chenopodium album* L. Chenopodiaceae               | PPN-ch-002        | Blows, dislocation, sprains                       | Crushed     | Branches or buds | Topic |
| 7      | *Agave americana* L. Amaryllidaceae                 | PPN-ar-002        | Bone fracture and dislocation                      | Gets small slats | Stems | Topic          |
| 8      | *Cucurbita ficifolia* Bouché, Verh. Amaryllidaceae  | PPN-cu-001        | Blows                                             | It uses the buds pounded and mixed with natural sweetener (panela) | Whole plant | Topic          |
| 9      | *Phoradendron parietarioides* Trel. Viscaceae      | PPN-vs-002        | Bone fractures and dislocated                     | Crushed     | Whole plant | Topic          |
| 10     | *Dendrophthora fastigiata* Kuijt. Viscaceae         | PPN-vs-001        | Bone fractures and dislocated                     | Crushed     | Whole plant | Topic          |
| 11     | *Carica pubescens* Lenné & C. Koch. Caricaceae     | PPN-cc-003        | Dislocation                                       | Heat        | Leaves    | Topic          |
| 12     | *Solanum oblongifolium* Dunal, Solan. Solanaceae   | PPN-so-0014       | Dislocation                                       | Heat        | Leaves    | Topic          |
| Number | Scientific name | Herbarium voucher | Medicinal use | Preparation | Used part | Administration |
|--------|-----------------|-------------------|--------------|-------------|-----------|---------------|
| 1      | Oxalis corniculata L. | PPN-ox-001 | Scurvy "scorbutic tongue" | To crush | Whole plant | Topic         |
| 2      | Impatiens sp. Balsaminaceae | PPN-ba-001 | Postpartum relapse | Infusion | Flowers | Oral          |
| 3      | Impatiens balsamina L. Balsaminaceae | PPN-ba-001 | Postpartum relapse | Infusion | Flowers | Oral          |
| 4      | Begonia sp. Begoniaceae | PPN-ba-001 | Postpartum relapse | Infusion | Flowers | Oral          |
| 5      | Impatiens balsamina L. Balsaminaceae | PPN-ba-001 | Postpartum relapse | Infusion | Flowers | Oral          |
| 6      | Nasturtium officinale R. Br. Brassicaceae | PPN-br-002 | Malaise of the body and flu | Crushed | Whole plant | Oral          |
| 7      | Borago officinalis L. Boraginaceae | PPN-bo-001 | Postpartum relapse and cough | Infusion | Flowers | Oral          |
| 8      | Tradescantia zebrina Heyn., Commelinaceae | PPN-co-004 | Postpartum relapse | Crush | Whole plant | Oral          |
| 9      | Calisias repens (Jacq.) L. Commelinaceae | PPN-co-001 | Postpartum relapse | Crush | Whole plant | Oral          |
| 10     | Agnetum conyzoides L. Asteraceae | PPN-as-037 | Gangrene and infections after birth | Crushed | Whole plant | Oral          |
| 11     | Geranium diffusum Kunth. Geraniaceae | PPN-ge-010 | Gangrene and infections after birth | Crushed | Whole plant | Oral          |
| 12     | Lepidium chichicara Desv. Brassicaceae | PPN-br-004 | Fever or cold caused by cold air or strong winds (locally known as "malaire", i.e., "bad air" in Spanish) | Crushed | Whole plant | Oral          |
| 13     | Dianthus caryophyllus L. Caryophyllaceae | PPN-cd-001 | Stomach ache | Infusion | Flowers | Oral          |
| 14     | Brassica oleracea L. Brassicaceae | PPN-br-007 | Postpartum infection | Crushed | Stem | Oral          |
| 15     | Peperomia peltigera C. D.C. Piperaceae | PPN-pi-010 | Nerves and headache | Infusion | Leaves | Oral          |
| 16     | Mesembryanthemum elegans L. Aizoaceae | PPN-az-002 | Nerves and headache | Infusion | Leaves | Oral          |
| 17     | Peperomia Inaequalifolia Ruiz & Pav. Piperaceae | PPN-pi-009 | Fright children | Cooked | Leaves | Bath          |
| 18     | Taraxacum officinale F. H. Wigg. Asteraceae | PPN-as-020 | Gastritis, ulcer and cleanse | Infusion | Whole plant | Oral          |
| 19     | Iresine herbstii Hook. Asteraceae | PPN-am-001 | Infections of uterus, vagina, liver and kidney | Crushed | Stem and leaves | Oral          |
| Number | Scientific name | Family | Herbarium voucher | Cold and nervous during childbirth and postpartum | Medicinal use | Preparation | Used part | Administration |
|--------|-----------------|--------|-------------------|-----------------------------------------------|----------------|-------------|-----------|----------------|
| 20     | *Pelargonium* sp. | Geraniaceae | PPN-ge-008 | Infusion | Leaves | Oral |
| 21     | *Pelargonium graveolens* L’Her. | Geraniaceae | PPN-ge-004 | Infusion | Leaves | Oral |
| 22     | *Pelargonium zonale* (L.) L’Her. | Geraniaceae | PPN-ge-005 | Infusion | Flowers | Oral |
| 23     | *Foeniculum vulgare* Mill. | Apiaceae | PPN-ap-004 | Infusion | Whole plant | Oral |
| 24     | *Myrica parvifolia* Benth. | Myricaceae | PPN-mr-002 | Infusion | Crushed | Oral |
| 25     | *Linum usitatissimum* L. | Linaceae | PPN-li-001 | Infusion | Cooked | Oral |
| 26     | *Plantago major* L. | Plantaginaceae | PPN-pn-001 | Infusion | Whole plant | Oral |
| 27     | *Anredera ramosa* (Moq.) E. Eliasson. | Basellaceae | PPN-bs-001 | Infusion | Crushed | Oral |
| 28     | *Lavatera arborea* L. | Malvaceae | PPN-ma-009 | Infusion | Flowers | Oral |
| 29     | *Pelargonium odoratissimum* L. | Geraniaceae | PPN-ge-001 | Infusion | Branches | Oral |
| 30     | *Mentha pulegium* L. | Lamiaceae | PPN-la-015 | Infusion | Branches | Oral |
| 31     | *Mentha piperita* subsp. | Lamiaceae | PPN-la-006 | Infusion | Branches | Oral |
| 32     | *Bidens iberica* Kunth. | Asteraceae | PPN-as-005 | Infusion | Whole plant | Oral |
| 33     | *Thymus vulgaris* L. | Lamiaceae | PPN-la-022 | Infusion | Flowers | Oral |
| 34     | *Ageratum conyzoides* L. | Asteraceae | PPN-as-053 | Infusion | Nerves | Oral |
| 35     | *Fuchsia hybrida* Hort. | Onagraceae | PPN-on-005 | Infusion | Nerves | Oral |
| 36     | *Viola tricolor* L. var. | Violaceae | PPN-vi-003 | Infusion | Nerves | Oral |
| 37     | *Clinopodium sp.* | Lamiaceae | PPN-la-024 | Infusion | Nerves | Oral |
| 38     | *Ruta graveolens* L. | Rutaceae | PPN-rt-001 | Infusion | Nerves | Oral |
| Number | Scientific name               | Herbarium voucher | Medicinal use                      | Preparation | Used part     | Administration |
|--------|-------------------------------|-------------------|------------------------------------|-------------|---------------|----------------|
| 40     | *Tanacetum parthenium* (L.) Sch. Bip. Asteraceae | PPN-as-031        | Children fright                    | Cooked      | Whole plant   | Bath           |
| 41     | *Cestrum sendtnerianum* C. Martius. Solanaceae *Baccharis obtusifolia* Kunth. Asteraceae | PPN-so-003        | Postpartum relapse                 | Infusion    | Flowers       | Bath           |
| 42     | *Salvia leucocephala* Kunth. Lamiaceae | PPN-as-014        | Cold during childbirth.            | Burn the dry | Leaves        | Topic          |
| 43     | *Iresine herbstii* Hook. var 1. Amaranthaceae | PPN-la-025        | Postpartum bath                    | Cooked      | Whole plant   | Bath           |
| 44     | *Iresine herbstii* Hook. var 2. Amaranthaceae | PPN-am-001        | Flu, fever or cold caused by cold air or strong winds (locally known as “malaire”, i.e., “bad air” in Spanish) | Infusion    | Whole plant   | Oral           |
| 45     | *Iresine herbstii* Hook var 3. Amaranthaceae | PPN-am-001        | Flu, fever or cold caused by cold air or strong winds (locally known as “malaire”, i.e., “bad air” in Spanish) | Infusion    | Whole plant   | Oral           |
| 46     | *Melissa officinalis* L. Lamiaceae *Verbena litoralis* Kunth. Verbenaceae *Viola odorata* L. Violaceae | PPN-la-004        | Nerves                             | Crushed     | Whole plant   | Oral           |
| 47     |                              |                   | Malaise of the body, infection of the throat, and flu | Cooked      | Whole plant   | Oral           |
| 48     |                              |                   | Cough                               | Infusion    | Flowers       | Oral           |

*Plants used in mythological cases.*
Conflicts of Interest

The authors declare that there are no conflicts of interest.

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